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THE FRUIT WORLD & MARKET GROWER

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A Monthly Newspaper published in the interests of the Berry Growers, Deciduous, Citrus, Dried and Canned Fruitgrowers, and Market Gardeners.
— by the —
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Advertising Australian Goods

Expenditure Defended.

IN reply to criticism levelled against the amount of money spent by Australia in advertising her products overseas, the Minister for Commerce, Dr. Earle Page, submits the following reply:—

"The advertising is criticised, but it does not appear to be realised that Australian trade publicity advertisements appeared in 319,000,000 copies of British journals last year. But there must be a sales organisation behind the advertising. This is supplied by the Australian Trade Publicity organisation, which maintains a team of travellers who last year made personal contact with over 25,000 British retailers. Posters were displayed on buses, trams, vans and hoardings, hundreds of thousands of pieces of advertising literature were distributed not only to the public but to interested retailers, demonstrations were given before over half a million customers in leading British stores, exhibitions and shop displays were organised throughout the United Kingdom, movie shows, lectures and broadcasts were exploited, and millions of copies of trade circulars and price lists carried advertisements for Australian goods.

"One would think that there had been a serious decline in our sales to Great Britain. There has, on the contrary, been a phenomenal increase even in the face of unprecedented world marketing difficulties as an examination of the statistics of our sales to United Kingdom will show.

"Comparing the sales of Australian products in the years 1923-1926 with those in 1933-1936, the following figures are illuminating. The average sales in each three-year period were respectively:—Butter 89,552,000 lbs. and 224,769,000 lbs; canned fruits, 12,797,000 and 49,555,000 lbs.; dried fruits, 52,309,000 and 80,194,000 lbs.; fresh Apples and Pears, 97,707,000 and 180,986,000 lbs.; eggs, 952,000 and 19,489,000 dozens, whilst the export of jams in tins, which we were told British people would not buy, has increased by nearly 5,000,000 lbs. between 1931 and 1936." He asks

"Could the Results be Bettered?"

"The Australian Government recognises the value of advertising, and since the publicity scheme came into operation in 1926, £739,336 has been contributed for the purpose by the Government and the industries concerned in the Australian Overseas Trade Publicity Committee. Last year the Government increased the Trade Publicity vote by £7,500, and the amount available for exhibition work in the United Kingdom was also increased by £5,000.

"No person who judges the nature of Australia's trade promotion work in the United Kingdom by merely counting the posters of competitors on buses is competent to criticise. What matters is that our sales are increasing tremendously, that the number of retailers stocking our goods has increased from 6,000 to 50,000 in the past ten years, and that our advertising is backed by a personal sales organisation which is showing indisputable results."

Personal

An unusual experience befel **Mr. J. A. Catto**, of Rheola recently when driving his car along a country road. A kangaroo literally bounded into the car, smashing the windscreen and bruising Mr. Catto's left arm. Flying glass cut the driver's face.

Mr. A. J. Cooper, of the Sydney Fruit Markets has recovered from his recent illness, which kept him away from the markets for nearly four months. During his absence, the business has been capably carried on by his sons, Eric and Charles Cooper, who have been associated with the business for several years.

Mr. H. L. Anthony has been elected to the Federal House of Representatives for the N.S.W. seat previously held by Mr. Roland Green.

Mr. Anthony is a well-known fruitgrower. He was President of the New South Wales Banana Growers' Federation for some years, and performed services of great value to the industry. He was also a member of the Board of the Fruit Growers' Federation for New South Wales.

All good wishes are extended to Mr. Anthony in this opportunity for enlarged public service.

Although he has not yet fully recovered from an attack of pleurisy that kept him confined to his home for several days, **Major Dakin**, representative in Australia for Geo. Monro Ltd., of London, is back at his office in Macquarie-place, Sydney.

OBITUARY.

The fruit industry regrets the passing of **Mr. Roy F. Walker**, of the Australasian Jam Co. Pty. Ltd., on October 16. The late Mr. Walker was well and favorably known in the trade for many years, and his association with the fruit industry had been cordial and helpful.

All sections of the industry were represented at the funeral, which took place at the Springvale Crematorium, where employees of the jam company formed a guard in honor of their late colleague.

Letters to the Editor

The Editor "Fruit World."

Sir,—

Referring to "Small Grower's" letter appearing in your October issue, there appears to be a great deal of truth in his diagnosis of the financial illness from which the Apple grower is at present suffering.

He certainly hit the nail right on the head when he stated that we are faced with rising costs. I would like to ask him what steps he has taken to have the enormous burden of tariff duties moved from the back of the primary producer? Until this is removed the position of the fruitgrower will continue to be hopeless.

It was anticipated by thinking people, for some considerable time, that the policy of the Export Council would have repercussions, as have eventuated.

When people realise the great truth in "Small Grower's" statement that in order that Germany may buy our Apples she must be permitted to pay for them in goods, we shall be 50 per cent. on the way to solving one of the world's greatest problems.

Unfortunately, a great number of people, including the politician as the worst and most dangerous offender, are under the impression that if you give a great deal more goods than you receive you are the beneficiary. Could any ideal be more absurd?

I regret that I fail altogether to understand "Small Grower's" ideas with regard to restriction of output. Surely such a policy is an extremely retrograde step, and will have the effect of creating a few more monopolies, such as the sugar scandal, which is largely responsible for the fruitgrowers' plight to-day.

Do man's desires ever reach saturation point? I would advise "Small Grower" to ascertain if the average Australian is able to purchase as much fruit as he would like to do. He will find that their plight is similar to his own, viz.: Costs high and returns low, all springing from the same source, i.e., restriction of imports in order to keep uneconomic industries fostered for a privileged few.

Yours, etc., "FREE TRADER."
Doncaster, 9/10/37.

EXTENDING APPLE CONSUMPTION.

(The Editor, "Fruit World and Market Grower.")

Sir,

In answer to invitation to discussion on letter from "Small Grower," Ringwood, 18/9/37, I wish to ask who is responsible for the over production of Apples?

Forty years ago, before the days of power spraying, when the Jonathan Apple proved superior to all other types and there were possibilities in exporting Apples to England under cool storage, the heads of Government Departments advocated heavy plantings of Jonathans, stating that the trees would carry an annual crop of 3 cases to a tree on the poorest ground, sell in England at 15/- per case at a total cost of 6/- per case, including transport and other charges.

I maintain that as the heads of Government Departments are, in fact, the brains of every Government, the Government should be forced by fruitgrowing interest to find markets and adequately subsidise the fruitgrowing industry. Even 24 years ago a permanent head in the Agriculture Department assured me that there was an extremely good living from 1,000 Apple trees.

Why is the German market closed to us? Germany will not trade unless we barter for German products. We spend millions of pounds for American motor cars, with an extremely small export trade to America. Why not import some German cars? Pre-war "Opel," "Mercedes" and "Benz" were in my opinion superior to pre-war American cars. Even now a German Diesel engine transport between Melbourne and Mount Gambier, with an 8-ton load average, and a speed of 20 miles per hour, will do the trip for £2, the highest cost being for lubricating oil.

Why is it that in Victorian inland towns that can support 6 or 7 hotels, it is impossible to get first grade Apples, and 6d. per lb. is asked for very inferior, small, wrinkled, spray-burnt Apples? At the same time, best Apples repacked at cool store cost 5/- a case at Melbourne market.

Is there an export trade in cold storage for Apples to Shanghai? The European population and Chinese mandarins in Shanghai are prosperous.

Is there an export trade in dried or canned Apples to Japan, China, Philippines, Singapore, the Dutch Colonial Empire or India?

Many years ago in Tasmania I purchased a 1 lb. carton of bleached dried Apples that, when cooked, were not in any way inferior to fresh fruit. Victoria and Tasmania are the nearest large Apple growing countries to the teeming millions of rice and fish eating people of the above-mentioned countries. Why are not Apples made into cider or distilled, into Apple brandy?

Many years ago at Upper Macedon an Englishman, with a hand press, made cider as an intoxicating and popular drink to those who were privileged to obtain it. The cider was made under license for the Earl of Hopetoun, who was then Governor of Victoria.

Why are not waste or even rotten Apples distilled into power alcohol, and diluted with petrol. Petrol is often diluted with kerosene and power alcohol has a much higher flash point than kerosene and is more free from carbon deposit.

Do we market preserved Apples in tins? Over 40 years ago during the Kalgoorlie gold rush, firm, white-fleshed American canned Apples were sold and were preferable to the unbleached dehydrated Apples obtainable.

It is the duty of the Government, which is responsible for the heavy plantings of Apple trees, to find outlets for a huge unprofitable industry that all sections of the trading community benefits from.—Faithfully yours,

A. J. FARRANCE.

Vermont, 11/10/37.

SHOWS TO COME.

Somerville (Vic.)—March 16, 1938.
Amiens (Queensland)—March 5, 1938.

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NEPTUNE SPRAYS . . .

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NEPTUNE PREPARED RED SPRAYING OIL ("A," "C," or Heavy Base)
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NEPTUNE CLARIFOL (Winter White Oil)
NEPTUNE WHITE SPRAYING OIL (Summer Spray.)
NEPTUNE LIME SULPHUR SOLUTION (Clear, amber-coloured, free from sludge)
GENUINE MACCLESFIELD BLUESTONE
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Bairnsdale, Victoria.

Spraying for Insect Pest and Disease Control

Codlin Moth Control

Sprays Recommended

Department's Seasonal Advice

THE Victorian Department of Agriculture's Horticultural Division has issued the following instructional circular for October release. For the benefit of our readers who may not be entirely acquainted with the sprays and proportions relative to Apples and Pears in the different seasons, we reprint the circular.

The object of the circular is to direct the attention of Apple and Pear growers to the important principles in connection with the control of codlin moth. Improved control of codlin moth cannot be obtained without a knowledge of the main features of its life-history, and the methods used in determining the best times to apply sprays.

Codlin moth activity commences each season with the transformation of the overwintering brood of larvae (grubs) into moths, which emerge from their cocoons during October, November and early December. During the early part of this period, the number of moths which emerge is relatively low; but increase rapidly as time goes on. Eventually a maximum, or peak, emergence is reached after which the number of moths emerging decreases.

Moths do not lay eggs until two to four days after leaving the cocoons, and then only if mild evening temperatures (approximately 60 deg. F. or more) are experienced. After a period of incubation of from 7 to 14 days, the eggs hatch and the young larvae which penetrate the skin and develop to maturity in the fruit. These larvae then leave the fruit, spin up in cocoons, and transform into moths which emerge to form a second brood in late January, February and March. Some cooler districts do not experience a second brood.

It is of great importance to time the cover sprays, to deal effectively with the main broods, and in particular the first brood.

The most convenient method available to determine the periods of emergence of the broods each season is to use lures.

Lure Pots.

Codlin moth lure-pots will be maintained by the orchard supervisors in each district, so that growers may be advised of the best times at which to apply sprays most effectively. The department urges growers to establish lure-pots in their own orchards.

It is considered that 20 pots will give an accurate guide, and these can be concentrated fairly closely in a typical part of the orchard.

Work with lure-pots in the last 12 months has shown the scientists how to reduce in some cases the number of sprays while maintaining control.

Control of the Spring brood of moths, the Department urges, is of the utmost importance. Otherwise control of the second brood is more difficult. To do this, the timing of sprays must be correct, their application thorough, and a good cover of lead arsenate must be maintained.

Fairly good results were obtained from the use of white oil sprays in efforts to minimise the arsenical residue problem. It is stated that to use white oil, accurate timing is essential. Although oil was used effectively in first brood control, its introduction so early in the season raised the cost of spraying considerably. To avoid excess arsenical residue, lead arsenate should not be applied within eight weeks of harvest.

One of the simplest supplementary methods of control is the use of either chemical or hessian bands placed on the trunks of trees to trap codlin in larvae after they have left the fruit. Bands enable the intensity of the second brood to be diminished, and also a substantial reduction of the carry-over from one season to the next. The cost of materials and application of bands amounts to 1½d. a tree. By preparing their own bandages growers may be able to reduce this cost.

It is shown that the total cost of applying a single lead arsenate spray would be approximately 2½d. a tree, so that, for about half the cost of a spray, growers can reduce definitely the moth population of their orchard.

The Calyx Spray.

This spray is necessary to prevent infection of the fruit through the calyx, and can only be effective if the protection is given early in the season before the calyx closes. A thorough calyx spray ensures protection of this portion of the fruit throughout the season.

Apples: At petal-fall apply arsenate of lead 5 lbs. of paste, or 2½ lbs. of powder, in 80 gallons of water. Two calyx sprays are recommended for varieties which blossom irregularly; e.g.: Rome Beauty and Jonathan, to ensure that the majority of the calyces are protected. In such cases, apply the first spray **before petal-fall** has been completed (about 80 per cent. petal-fall), and the second seven to ten days later.

Pears: Advantage is taken of the fact that the calyx of Pears closes slowly and can be more effectively filled with lead arsenate at a delayed stage.

At the **delayed calyx stage**, about three weeks after petal-fall, but before the Pears turn over, apply arsenate of lead 5 lbs. of paste or 2½ lbs. or powder, in 80 gallons of water. For William's and B. Bosc varieties, this spray can be combined with the Bordeaux mixture spray 3:3:50 (or 5:5:80) for the control of black spot.

For varieties liable to russet, see Instructional Circular No. 7. Do **not** apply a half-strength Bordeaux mixture to such varieties.

The Cover Sprays.

The times of applications of lead arsenate or ovicidal white oil sprays, must be determined by the aid of lures in order to be most effective and to reduce the number of sprays to a reasonable minimum.

Apples: Apply arsenate of lead 5 lbs. of paste or 2½ lbs. of powder, in 80 gallons of water, or Summer white oil 1 gallon in 60 gallons of water (1⅓ gallons in 80 gallons of water).

Where seasonal conditions warrant the continued application of lime-sulphur sprays after petal-fall, care should be taken not to apply white oil within three weeks of a lime-sulphur spray, otherwise serious injury may result. In such circumstances, arsenate of lead should be used as cover sprays until the risk of injury has passed.

Pears: Apply arsenate of lead 5 lbs. of paste or 2½ lbs. of powder in 80 gallons of water. White oil cover sprays can be used as effectively as on Apples, but clean-skinned varieties, sprayed late in the season are liable to "color up." This factor should be considered where export Pears are concerned.

Combinations.

When it is necessary to combine lime-sulphur and lead-arsenate, add the latter to the diluted lime-sulphur and spreader **immediately** before spraying. For this combination spray, lime casein spreader ½ lb. in 80 gallons, is recommended.

For the control of late or Summer black spot, 6 ozs. each of bluestone and freshly slaked lime should be included in each 80 gallons of lead-arsenate or white oil. Add lead to the vat containing the diluted Bordeaux mixture.

For 100 gallon vats, the following quantities are used to make sprays of the same strength as previously set out for 80 gallon vats:—

Lead arsenate paste, 6 lbs.
Lead arsenate powder, 3 lbs.
White Oil, 1-2/3 gallons.

A spreader may be used if preferred. Growers are warned to avoid the use of large amounts of spreaders in their sprays because excessive "run-off" may occur, thereby reducing the cover. Usually ½ lb. of lime casein spreader or 1 pint of Summer white oil or 1 pint of red oil per 80 gallons, is sufficient.

A combination spray of lead arsenate (5 lbs. in 80 gallons) and white oil (1-60) has not been recommended because of the subsequent difficulty in the removal of the arsenical residue. If growers employ this spray or use 1 pint of white oil emulsion or red oil (as a spreader) in their usual lead arsenate sprays, it is advisable to add ½ lb. of lime casein spreader also, or 6 ozs. of freshly slaked lime per 80 gallons of the spray mixture. This will minimise the danger from arsenical injury.

Warning.

The application of Summer white oil alone or in combination with lead arsenate to the variety **Cleopatra**, particularly within two months of harvest, is likely to cause severe staining of the fruit, and therefore the use of white oil cannot be recommended for this variety.

It is hoped that the above recommendations will serve as a general guide to growers for the control of codlin moth of Apples and Pears. It is not possible to recommend any predetermined schedule of sprays without considering seasonal and district conditions.

Growers are urged to keep in touch with the district Orchard Supervisors, who are conducting the demonstration plots established last season, and correspondence addressed to the Superintendent of Horticulture, Department of Agriculture, Treasury Gardens, Melbourne, C.2, is invited.

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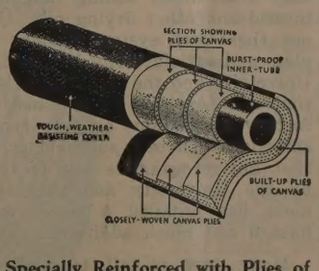
CODLIN MOTH SPRAY.

Programme Recommended.

IN a paper read before the members of the Clarendon branch of the S.A. Agricultural Bureau by Mr. M. G. Basey, of Cherry Gardens, and reported in the "Journal of Agriculture," Mr. Basey gives some advice, the result of his own experience and observations.

A calyx spray is not necessary. Give the first application when the Apples are well set and the largest about ½ in. in diameter. This is generally at the end of October. The second spray is given ten days after, and is important for two reasons:—(1) the first spray seldom covers the whole surface of every fruit and a second spray shortly after covers up the whole of the bare spots; (2) it is very necessary to strike the first brood to cut down the numbers of subsequent broods. The third and subsequent sprays are again given at intervals of three weeks in the case of Jonathans and four weeks with Yates—making six sprays in all or seven sprays if a calyx spray is given. With varieties that grow larger and more quickly than Jonathans shorten the intervals between applications. The main thing is always to have the **whole** surface of **every fruit covered** with spray all the time. This brings up another point. Some brands of lead stick better than others, and it is a waste of time to use a lead that will not stick. A good way to sample them is to spray beer or lemonade bottles with different brands at standard strength, and leave them exposed to the weather. We use 6 lb. paste and ½ lb. of calcium caseinate spreader to 80 galls. of water. Paste is said



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SAFE - - - - Because it prevents Leaf Scorch.
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ECONOMICAL Because it ensures maximum results at less cost than other forms of Sulphurs.

As a Precautionary Spray, 1 lb. of "SPREGAN" to 100 gallons of water.
As a Combatant Spray, 2 lb. of "SPREGAN" to 100 gallons of water.

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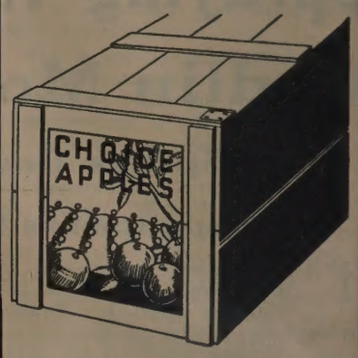

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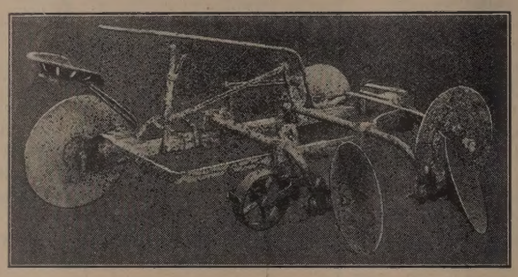

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A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

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Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

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to stick better than powder and has finer particles.

The factor which is perhaps the most important of all is the thoroughness with which the spraying is done. Most grub losses are caused through inefficient application of the spray, leaving many parts only partly covered or not covered at all. Growers probably think they are doing a good job, but in the rush to get the work done and keep the cost down many fruits are not properly covered. £10 saved in time and material can easily mean a loss of £100 in fruit. For growers whose orchards are badly infested the following programme should be followed for a year. If successful, a normal spray programme should suffice in subsequent years, particularly if the orchard is isolated and not subject to infection from neighbors.

Programme: In the Winter scrape the bark from trees and kill all grubs, taking care to go 2 inches below the ground surface. Bandage trees. Commence with calyx spray, 7 lbs. paste and ½ lb. spreader to 80 galls. water. Continue with this mixture every ten days for at least five applications, and then perhaps every two or three weeks with 6 lbs. paste and ½ lb. spreader. If thoroughly done this should clean an orchard. The strong and early applications are recommended to strike the early broods.

The above method has been very successful. One year (a light crop one) there were 40 per cent. of grubs in Jonathans. Twenty-thousand grubs were collected in the bark during the Winter and the above programme was put in operation. Since then grub losses have been practically nil—not ¼ per cent. the following year. It was not worth while examining the bandages and they have not been used since ten years ago.

Spray Residue

Spreaders and Stickers

EXPERT'S ADVICE

IN discussing spray treatment in the "California Cultivator" of July 17 last, Dr. Alvin Cox, of the Division of Chemistry, California Department of Agriculture, says:—

A satisfactory system with regard to spray residue removal work has been developed in California, when intensive work was started, almost any kind of a machine and removal agent was used. The wipers have all but disappeared and most farmers now use only a solution of hydrochloric acid for dissolving lead arsenate residues from fruits. Last year for the first time there was a 100 per cent. washing of Pears on the Sacramento River. We have encouraged growers to make timely use of all the lead arsenate needed for proper control of codlin moth and then remove the residue in the same workmanlike manner used in spraying and picking. Growers should avoid complications which may arise when adding herring oil, linseed and other drying oils. Without these the system is now complete and satisfactorily handled. The University and the Department's pest control supervisors have issued satisfactory suggestions on safe types of spreaders. There is sufficient evidence that any programme not recognised by the University and this department has entailed a spray residue hazard and much additional expense.

Many growers fail to understand the difference between a spreader and a sticker. Due to a confusion in, and loose use of terms by salesmen, growers appear to have been misled. A good spreader, that leaves only a thin layer of water, will deposit the suspended material more evenly than a sticker. The thinner the layer of water the smaller the run-off of the solid material, and consequently the greater deposit of solids. Spreaders produce the desirable flocculations, whereas stickers plaster the mass to the fruit. Any drying oil is a sticker. Such oils may serve a useful purpose as stickers in regions where heavy rainfall occurs rather frequently, but it is believed that there is no justification for stickers in the general spraying for codlin moths in California. Mineral oils should seldom be used as late sprays. When used at all they should be light and free from heavy ends, have a viscosity of less than 70, and should be discontinued in time to evaporate before harvest.

There may be no added difficulty in removal of spray residue if the so-called "dynamite" spray is used in the calyx and the first cover spray on late maturing varieties. Beware of the danger of residue removal difficulties if used as a late spray.

I wish especially to temper the emphasis which has been placed upon stickers in California this year. The spray residue problem has been successfully handled. It is true that those who in the past have nearly ceased spraying to avoid acid washing have suffered a build-up of codlin moth. This should be conquered by normal spraying rather than by going to the other extreme. The difficulty that may be expected if growers continue to employ the unnecessary sticking agents is appalling, for they make the lead arsenate residue very difficult, if not next to impossible, to remove with our ordinary hydrochloric acid washers, even with heat. The present methods are all that we should ever require. We do not need stickers that will force us into unnecessary difficulty, and the additional expense of tandem washers.

FRUIT BRIEFS.

When rising labor costs and increased competition was reported to canning Cling Peach growers in Sacramento recently, they agreed to an increase of 1/- per ton in the advertising levy.

:: :: ::

Yolo County fruit growers have an effective way with them. When a strike was declared amongst Apricot pickers, the growers told them to go to work or get out. They worked.

:: :: ::

Pulling out trees from abandoned orchards in one district of Washington resulted in cutting codlin moth infestation by half.

:: :: ::

Said to be the largest Nectarine orchard in the world, the Hayward Reid orchard in Tehama County, Calif., will ship about 100 car-loads of Nectarines this season.

PUTTING EPSOM SALTS TO WORK

Discoveries of new ways to destroy insects continue to be made, some of them being somewhat surprising. Thus "Science" reports the discovery that magnesium sulphate, or Epsom salts, has been found to be a very efficient poison to certain insects. On others it is useless. Naturally, this is a very inexpensive material.

As a spray it has been found effective against the Mexican Bean beetle. It is also toxic to the Wheat wire worm. Its greatest use, however, will likely be as a grasshopper poison. A moist mixture of bran, molasses and magnesium sulphate used experimentally on grasshoppers proved an inexpensive and efficient poison bait. —D.J.W.

The Crown Apple Pack

SATISFACTION REPORTED FROM LONDON

WE have received the following enclosure from Mr. P. H. Thomas, Chief Horticulturist, Department of Agriculture, Tasmania, relative to a report received from the Agent-General for Tasmania in London regarding to Crown Apple pack.

It will be remembered that, upon his return from a visit to America, Mr. Thomas recommended the use of the Crown type of pack for Tasmanian Apples. Packers were instructed by Departmental officers in the method and a number of floors adopted the recommended type of packing. Arrangements were then made for reports upon the outcome of the new style to be forwarded.

The Hon. Minister for Agriculture, Mr. R. Cosgrove, now releases the following report, which will be of interest to all growers and exporters:—

I refer to your despatch No. 182 of April 21, in which you convey a request for a special report as to how the standard type case put up on the "Crown" pack system is being received on the English market.

A report has been prepared by the Trade Commissioner upon the packs of the five large sheds mentioned in your despatch. There is no doubt that these packs have very favorably impressed the trade here, and it will be of very great assistance to our fruit industry if a pack and "get-up" of this standard is adopted by fruit growers of Tasmania generally. It is therefore suggested that the remarks in the Trade Commissioner's report on this system of packing should be given full publicity in Tasmania.

Shed A.—The improvement in this pack, over that seen in previous seasons, is most marked, and it is, in fact, one of the most outstanding features of this year.

In every instance seen the cases have arrived with a full bulge, the outward appearance closely resembling the leading packs from the United States of America. Upon close examination it has been found that the pack still retained the "crown," the case opening up very well, every Apple being in its place and generally presenting a most attractive appearance. Throughout all packs examined, the fruit was of uniform grade, and there was practically no visible signs of bruising.

Shed B.—Quantities of fruit put up by this packer have been seen in the markets, and have been found to compare very favorably with the best packs from Tasmania.

A large quantity of fruit was packed in hardwood and part hardwood cases, and it was observed that the variation in the size of these cases do not permit of an absolutely true pack being made. Generally speaking, however, the packing was very good, very little bruising being found, and if the whole of the fruit exported from the State was equally as well packed as fruit from this particular shed, no complaints could be made.

Shed C.—This pack arrived in pine cases and was at all times attractive and well packed. The fruit was generally found to be firm in the boxes, and upon the lid or side being removed, every Apple was in correct position. The long lines under this brand also help to make it attractive to buyers.

Here again, one can only express the wish that more Tasmanian fruit would arrive in this country packed as well as this particular brand.

Shed D.—This brand for several years has been well received on the London market, and it can be classed as one of the leading packs from Tasmania.

It compares very favorably with packs from New Zealand or Australia, whilst the colored papers in which the fruit is wrapped also adds to the attractiveness of the "get-up" of the fruit.

It was noticed that there was a tendency in many instances for the end Apples in the top layer to be crushed on the edge of the head of the case, which gives rise to the belief that the lidding machine was not quite correctly adjusted. In drawing attention to this defect, buyers have emphasised the fact that they would sooner have the two or three Apples damaged in this way than that they be left out of the case.

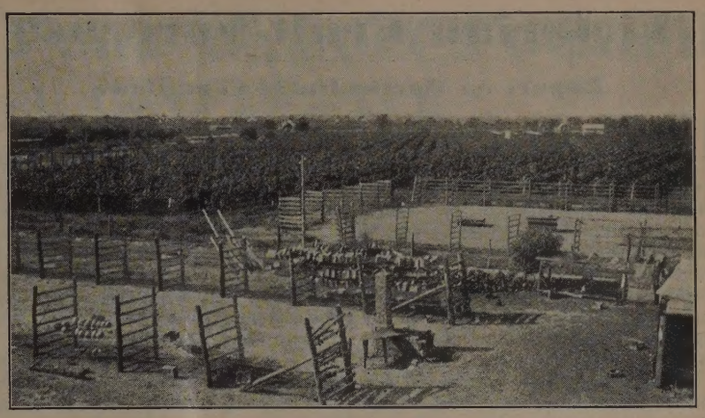
This pack compares most favorably with any from Australian shippers.

Shed E.—In some instances fruit under this mark opened up "slack," but generally speaking it would rank as a first-class pack. As this fruit is put up in several sheds, it may not be possible to form a correct opinion on the whole of the output, but as far as the trade is concerned it is generally well received and much sought after.

However, it is felt that closer supervision is necessary between the different sheds packing under this brand, so that a more uniform style becomes evident.

I think it can be stated with the fullest confidence that all the above packs are most favorably received by the trade in the United Kingdom, and certainly on the question of pack and general "get-up" they are equal to the best standard that is received from America. Further, I am more than satisfied that if all fruit exported from the State could be placed on the English market equally as well packed and graded, Tasmania would immediately take the leading place amongst those countries exporting to England during the period of our season.

In conclusion, Mr. Cosgrove said that it was very gratifying indeed to secure a report in such commendatory terms regarding the packs which had been put up by these four packing houses, and it confirmed the views of the Premier (The Hon. A. G. Ogilvie, K.C.) and other observers who had indicated that a very substantial improvement was evidenced in the general "get-up" and quality of Tasmanian fruit this season. He hoped that the lead which had been given in improved packs by the sheds mentioned and also a large number of other growers would be followed by the small minority of growers who had not yet realised the importance of uniformly high quality fruit being shipped to London where it met keen competition from other countries.



Scene in a Mildura Vineyard.

TO MAKE WAXED CALICO.

For Use in Grafting.

Secure a good, strong, cheap calico which will tear easily without fraying. Tear into slips varying in width from 8 to 15 inches, according to the size of the stock to be grafted, the strips to be wide enough to wrap around the stocks at least four or five times. Take 1 lb. beeswax, ½ lb. resin, and ½ pint boiled linseed oil, and melt all up together, and, whilst still hot, dip the calico into the mixture, and draw it out between two straight-edged sticks held tightly together. These will remove all surplus wax and leave just enough on the calico. If it is found that this mixture is not quite sticky enough, a little more beeswax can be added.

This waxed calico, after it is cool, may be doubled up and nicked along the edge at distances of about one-third of an inch. It is then unrolled and wound on a pointed stick. After nicking, it is readily torn each time a small strip is required, and the pointed stick can be easily stuck into the ground.

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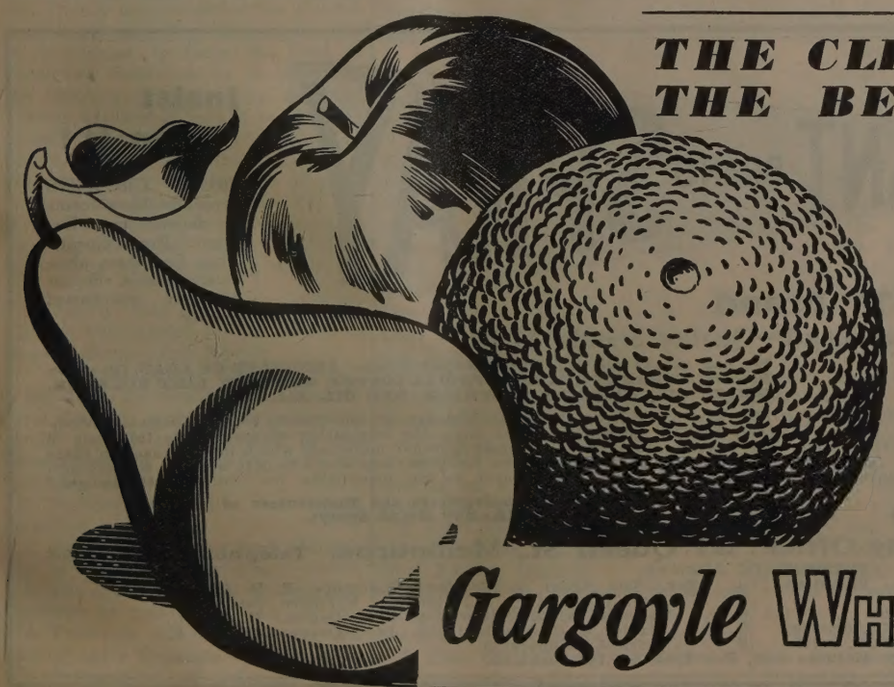

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Gargoyle WHITE Spraying Oil

Victorian Fruit Forecast

Report on Horticultural Conditions

IN a report issued recently on horticultural conditions, the Director of Agriculture, Mr. H. A. Mullett, states that, in the Panton Hill and Diamond Creek districts the indications are that the Apple crop will be much heavier than was at first anticipated. The Apricot crop in the Geelong district is patchy, while a serious hailstorm experienced in the Kyabram district in September damaged Apricots to some extent.

The fruit blossom season was in full swing; almost everywhere there has been an excellent crop of flowers, and Apple trees show good promise, although should the weather continue dry there may be a considerable dropping, in which case the crop may be accordingly reduced.

Blossoming of Apples at Harcourt and at Bendigo was good, and there was a heavy budding also through the north-east. There has been a good setting of Almonds in the north-east, Rochester, and also at Tresco; even such shy bearing varieties as Brandes Jordan carrying a good crop.

Peaches were flowering well in the Horsham district, but Apricots were reported to be making a poor display. Apples and Pears there and at Pomonal and Amphitheatre were budding well. Pears, Apricots, Peaches and Plums in the Rochester district were flowering heavily.

The Naval orange crop was almost over in most districts, but Murrabit was sending a daily average of 400 cases to market. Planting was receiving consideration in the Swan Hill district, where, already, 6,000 trees have been booked for next season. Young growth on Mildura citrus trees was showing well, and there was every prospect of a good blossoming season.

Seasonal conditions during September had been normal and favorable in the viticultural areas. Several light frosts had occurred, but no damage had resulted, and it appeared that the vine in its earliest stages of growth is less susceptible to frost injury than later in the season. In the irrigated areas frost alarm systems had been freely installed, and growers in recognised frost areas had heaters set in readiness to act upon receipt of a telephonic or wireless warning.

In the non-irrigated areas the Spring cultivation operations were well in hand and conditions were ideal for a good bud burst, although, owing to the relatively dry Winter, there was some doubt as to whether the subsoil was as well charged with moisture as usual.

APPRECIATION FROM W.A.

The Editor,
Sir,

An article on the "Biennial Cropping of Apples" in the current issue of the "Fruit World" has solved a problem here, and the information obtained from just the one article makes the annual subscription to the paper an absolute necessity. I have read many valuable articles in the "Fruit World" which have enabled me to keep abreast of the times with the working of this orchard.

(Signed) "A.J.P.", Bridgetown, W.A. (28/8/37).

As illustrating the intensive cultivation of some California districts, San Fernando Valley cultivates: 16,000 acres Grapes, 16,000 acres maize, 14,000 acres deciduous fruit, 11,000 acres citrus, 8,000 acres Walnuts, 6,000 acres sugar beets, 7,000 acres alfalfa, 3,000 acres Tomatoes, and 600 acres sweet potatoes.

:: :: ::

Five Fig trees and one Pear tree on the Finnel Ranch, Napa County, were planted in 1836, and are still bearing.

:: :: ::

8,000,000 acres of cattle land in Arizona are so affected by erosion that they are useless for grazing.

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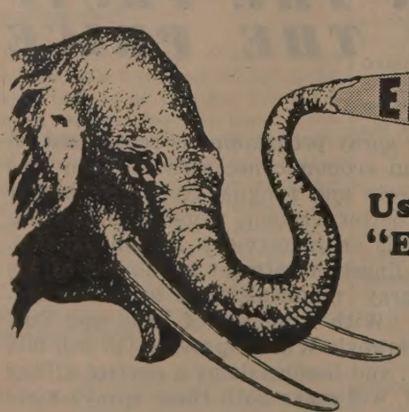

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Extract from "BETTER FRUIT," March, 1937, by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: CODLIN MOTH COVER SPRAYS—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codlin moth control."

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Australian Apple and Pear Export Council

IMPORTANT ANNUAL CONFERENCE

Export and Local Marketing

THE Annual Conference of the Australian Apple and Pear Export Council was held at 5 Young-street, Sydney, from October 25 to 29, 1937.

Delegates were in attendance as follows:—President, Mr. J. B. Mills; Vice-President, Mr. L. S. Taylor.

Tasmania: Messrs. R. H. Thompson, C. O. Smith, J. R. Abel, D. E. Ryan, J. H. Astell, A. J. Honey, R. W. Humphreys, J. P. Piggott, C. H. Cane, A. E. Bull.

Victoria: Messrs. G. W. Brown, F. Moore, R. A. W. Bailey, K. Weeding, J. W. Barker.

South Australia: Messrs. J. B. Randell, H. J. Bishop.

West Australia: Messrs. J. M. Martin, H. Lake, R. M. Carter, F. Simper.

N.S.W.: Messrs. A. E. Herring, J. W. Blick, E. E. Herrod.

Queensland: Mr. B. Flewell Smith.

Departmental officers were present: Messrs. H. Thomson, J. A. Stevenson, S. Dusting, E. N. Robinson (Dept. of Commerce), P. H. Thomas, H. Benjafield, S. Grueber (Tas.); A. G. Strickland (S. Aust.), C. G. Savage, E. Whittaker, H. Broadfoot (N.S.W.), G. W. Wickens (W.A.), W. M. Carne (C.S.I.R.), J. M. Ward (Vic.).

Report by President.

Mr. J. B. Mills presented a report dealing with his visit to the United Kingdom and the Continent. This report dealt with Ottawa preferences, freight reduction, Continental freight, the German market, British ports, successful "Port Jackson" experimental shipment, handling of fruit, advertising in U.K., Australia House, Varieties and regulations, quantitative restriction, intelligence notes, Empire Fruit Council, co-operation with New Zealand, and the future of the industry. (This report is published elsewhere in this issue.)

There was a full discussion in which appreciation for the report was expressed, and the report was adopted on the motion of Messrs. Astell and Brown.

Official Opening.

The chairman, in welcoming the Hon. H. V. Thorby (Assistant Minister for Commerce) spoke in terms of high appreciation for the services rendered by Mr. Thorby to the fruit industry in the negotiating of the freight agreement and other matters.

In officially opening the Conference, Mr. Thorby congratulated the Australian Apple and Pear Export Council on its success: he stated the Dept. of Commerce desired to be of service to the industry in every way, and had already assisted in regard to bounties, freight reduction, research work. The appointment of Dr. Harrison as Research Officer in London was of great value to the industry. When the Ottawa Agreements were reviewed, it was expected that better conditions than those now operating would result.

A hearty vote of thanks to Mr. Thorby was carried on the motion of Messrs. Brown and Martin.

Departmental Enquiry.

Mr. J. A. Stevenson (Sec., Agricultural Council) stated that an enquiry would shortly be conducted by the Department of Commerce into the following matters:—

1. Further restriction of export varieties.
2. The working over and elimination of unsuitable varieties.
3. The arrangement of picking programmes in connection with export.
4. Provision of facilities for obtaining early forecasts of production.
5. Preparation of amended shipping programmes.
6. Organisation of shipments to prevent gluts in the United Kingdom.
7. The question of the most suitable type of export case should be investigated.
8. Advertising and publicity in Australia and overseas.
9. Grade standards for local and export markets.
10. Organisation of the industry—including provision for a marketing authority.

Subsidised Shipping.

Mr. Thompson (Tas.) moved:—

That is be a recommendation to the Australian Apple and Pear Export Council to investigate the position of the fruit industry in relation to subsidised competition of other countries and that the whole position should be placed before the Federal Government.

In explanation, Mr. Thompson said that other countries were apparently subsidising their shipping and it would be of advantage to have complete details in regard to this matter.

Mr. C. O. Smith seconded. Carried.

Apple and Pear Varieties.

Committees were appointed to report on Apple and Pear varieties as follows:—

Apples.—Messrs. Lake, Thompson, Bailey, Abel, Randell and Brown.

Pears.—Messrs. C. O. Smith, Moore, Herring, Martin, Bishop and Weeding.

Trade with the East.

Mr. K. Weeding reported the findings of the Committee on Trade with the East as follows:—

That immediate steps be taken to set up a permanent sub-committee of the Australian Apple and Pear Export Council to deal with all matters relating to the Apple and Pear Trade with the East and in order that this committee may function, sub-committees of the Apple and Pear trade be set up in each State from bodies affiliated with the Apple and Pear Export Council.

The permanent sub-committee deal immediately with the following recommendations:—

1. That it is recommended by the A. & P.E.C. that all business be carried on on a c.i.f. basis, other than small trial shipments.
2. That special attention be paid to remedying the complaints received from Eastern markets.
3. That efforts be made to secure reductions in freight rates now being charged on fruit shipped to the East.
4. That the shipping companies be also approached with a view to regular allotment of refrigerated space.
5. That the permanent sub-committee be the appointed body to take up with the Eastern Section of O.S.R.A. the items re freight rates, and that arrangements be made whereby each State is offered a share of the refrigerated space available in B.I.S.N. ships.
6. That this Council approach the Commonwealth Government with the idea of obtaining a preferential tariff of 10 per cent. on all Apples and Pears imported into India.
7. That the Council supports the proposal of appointing a Resident Government Representative to India.
8. That this Council request that a Trade Commissioner be appointed as soon as possible to fill the vacancy of Mr. Critchley, who has been transferred to New Zealand.

The report was adopted.

The personnel of the permanent committee was decided as follows:—Messrs. Bishop, Brown, Abel, Astell, Flewell-Smith, Weeding, Blick, Carter, Simper and Humphreys.

In reply to questions, the Chairman stated that the permanent Committee would meet during the progress of the annual conferences of the Council. The committee would act as a "clearing house" for the proposals of State Committees, and would be in effective contact with the Eastern Shipping Section of the O.S.R.A.

Australian Apple and Pear Export Council 1937 Conference in Sydney.

Apple Committee.

On behalf of the Apple Varieties Sub-Committee, Mr. J. B. Randell moved as follows:—

That with regard to sizes and varieties for markets other than United Kingdom, there be no alteration to the present regulations. Adopted.

That the item (as follows) from New South Wales be not approved:—

That Granny Smith Apples carrying slight hail blemishes up to a total diameter of ¾ in. be permitted export under the grade of Fancy H, such Apples to be equal in all other respects (apart from superficial hail blemishes), to Fancy Grade.

Mr. Randell moved that the Committee's recommendation be endorsed. Mr. R. Bailey seconded.

Mr. Herring and Mr. Blick spoke in favor of permitting export of the slightly hail marked Granny Smiths. Messrs. Lake, Thompson, Astell and Flewell-Smith supported the Committee's recommendation, which was adopted.

Mr. Randell moved the adoption of the recommendation from the State Supervising Officers' Conference:—

"That the grade designation '2⅝in.' for Apples and Pears be eliminated from the regulations."

In the discussion it was pointed out that other eighths—2⅝ and 2⅞—were not mentioned in the regulations, but that if growers and packers desired to use these sizes and brand them on the boxes, there would be no objection whatever to this being done. The idea in removing the designation "2⅝" from the regulations was because this was redundant, and that trade practices could be carried on exactly as in the past.

The recommendation was adopted.

Mr. Randell said that with the exception of Tasmanian delegates, the Committee recommended that the following varieties be eliminated after the 1938 season—Coleman, Jubilee, Mobbs Codlin, Schroeder, Stayman and White Winter Pearman. He moved the adoption of the report. Mr. Bailey seconded.

After full discussion the Council agreed that these varieties be permitted export up to and including the 1940 season, and then to be reviewed. (Motion Messrs. Astell and Piggott). This decision also to apply to the other varieties listed in the Adelaide conference as follows:—Alexander, Australian Beauty, Crow Egg, Reinette de Canada, Ribston Pippin, Pomme de Neige, Aromatic, Ballarat (Stewarts Seedling), Nickajack.

Mr. Randell stated that the State Supervising Officers' Conference had recommended that the following varieties be permitted export up to mid-March only:—Alexander, King Cole, McIntosh Red, Ribston Pippin, and Wellington. The decision of the Committee, however, was only in favor of **McIntosh Red being recommended for export up to Mid-March only.** He moved accordingly.

Mr. Brown seconded. Carried.

Regarding the report from the State Supervising Officers' Conference, re sizes, abbreviations and color requirements, the following was adopted:—

That the following abbreviations be adopted:—Ballarat **(Bal)** and McIntosh Red **(Mc Red).**

That the size requirements re Ribston Pippin remain as at present.

That the color requirements for French Crab be 100 per cent. green for Extra Fancy and 80 per cent. green for Fancy. King Cole color requirements—70 per cent. Extra Fancy and 35 per cent. Fancy.

That the definition of "Characteristic Color" be thus:—The color characteristic of the variety means the

normal pink or red coloration of that particular variety except that in the case of Alfriston, Ballarat, French Crab and Granny Smith, the characteristic color shall be green or green and flushed.

Permit Regulation.

Attention was directed to the clause in the regulations, i.e., the consent of the Commerce Department Secretary being necessary for the export of Jubilee, Mobbs Codlin, McIntosh Red, Stayman, White Winter Pearman and Wellington.

Mr. Thomson (Department of Commerce) said that is was intended to compile details as to the quantities exported of the several varieties.

It was decided to agree to the deletion of the clause in the regulations re consent being necessary for the export of the varieties named.

Cox Orange Pippin.

Mr. Abel moved:—

That the Cox Orange Pippin variety be considered sufficiently mature for shipment when it has attained the required color as laid down by the export regulations.

Mr. Thompson seconded. Carried.

Russet Tolerance.

There was a lengthy discussion on the resolution from the Tasmanian State Fruit Board—"That no alteration be made in the regulations reducing the percentage of russet on Apples and Pears."

The report of the State Supervising Officers' Conference was amended and adopted as follows:—

"The russet tolerance be amended to read as follows:—**Extra Fancy:** For the purposes of this paragraph, smooth russeting shall not be considered a blemish in varieties other than Granny Smith and Cleopatra, provided that not more than 10 per cent. of the surface of any Apple is affected. **Fancy:** For the purposes of this paragraph smooth and not unslightly russeting shall not be considered a blemish, provided that the following amounts on any Apple are not exceeded:—

Granny Smith and Cleopatra, 10 per cent.

Other varieties, 25 per cent.

except that with regard to Sturmers the present regulations shall apply. Extra Fancy 30 per cent. Fancy 50 per cent."

The foregoing was adopted on the understanding that the regulations were administered with discretion.

Pears.

Mr. Moore submitted the report of the Pear Sub-Committee recommending certain deletions.

Mr. C. O. Smith (Tasmania) requested, on behalf of the Tasmanian State Fruit Board, that there be no further deletion at present of varieties from the Pear Export list.

It was finally decided, after considerable debate—

That the following varieties be immediately excluded from the export list:—B. de Capiaumont, L'Inconnue, B. Diel, Broom Park, B. Clairgeau, P. Barry.

That the following varieties be permitted export in 1938 and then come up for review:—Black Achan, Howell, Marie Louise, Doyenne Bossuch, Lemon Bergamot, Vicar of Winkfield, Williams Bon Chretien, Winter Bartlett, Giblins Seedling, Beurre Britton, Middleton and Kieffer.

That the varieties Duchess D'Angouleme and Easter Beurre be placed on the permanent export list.

Moisture Content of Pear Cases.

The State Supervising Officers Conference proposed that the moisture content for timber for Pear boxes be raised to 25 per cent.

Recommendation of Committee that as regards Pear boxes there be no alteration to the present moisture content of 20 per cent. Agreed.

Motion: Messrs. Moore and Weeding.

Moisture Content of Apple Boxes.

It was agreed on the recommendation of S.S.O.'s Conference the moisture content of Apple boxes be increased from 20 per cent. to 25 per cent.

Case Measurement.

Mr. Piggot moved:—

That it be a recommendation from the Australian Apple and Pear Export Council that the Commonwealth Government be requested to amend Statutory rule 1937 No. 65 dealing with the export of fresh fruit so as to provide that the outside measurement of Apple cases submitted for overseas export does not exceed 1 ft. 8 in. cubic measurement.

Mr. Thompson seconded.

After full discussion and details had been supplied by Mr. P. H. Thomas re Crown Pack, the resolution was carried.

Australian Apple Case (dump case).

On the motion of Messrs. Abel and Simper it was decided to recommend that there be no alteration of the present regulations, viz., 18 x 14¼ x 8 2/3, optional up to 9 in. Half dumps, 18 x 7⅛ x 8 2/3 (tolerance to 9 in.).

Sides of Cases.

The S.S.O.'s Conference proposed as follows:—

Each side shall measure 10¾ in. by 5/16 inch, by not less than 19¾ in. or more than 19¾ in. Unless a side is of one piece it shall comprise two pieces only, and the width of each of such pieces shall not be less than 5¼ in.

Mr. Abel moved, Mr. Blick seconded:—

That sides of the standard Apple box can be of two pieces of any width with an aggregate measurement of not less than 10¾ inches. Carried.

Regarding other items submitted by the S.S.O.'s conference a Committee was appointed to give consideration and present a report to Conference.

The Committee was appointed as follows:—Messrs. C. O. Smith, Simper, Moore, Blick, H. V. Smith (Batlow), Carne and Dusting.

Shipping and Freight.

Mr. Carter brought forward a proposal from W.A. in the matter of over shipments against short shipments by any one line. To be referred to O.S.R.A.

With regard to rejection of fruit by ships' officers, Mr. Carter contended that fruit passed for shipment by an inspector but subsequently rejected by ship's engineer should be deemed good tender under the freight contract, and that growers and shippers be not held responsible for dead freight in respect of such fruit tendered. The foregoing in no way to lessen the authority of the ship's engineer to reject fruit. It was decided to take up this matter with O.S.R.A.

It was also decided to take up with O.S.R.A. the following items on the agenda:—

That O.S.R.A. be requested to make more quickly available the rebate of 2d. per case.

That this Council take steps to prevent a recurrence of allotting Tasmanian steamers for each shipment of Apples and Pears which are scheduled to make protracted voyages to England.

That Conference requests a better and more even spacing of ships to English ports to avoid serious dumping or overflooding of Apples and Pears on to the English markets.

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That O.S.R.A. be requested to make more adequate arrangements for the carriage of Pears from Tasmania.

That a request be made to the O.S.R.A. that the freight rebate should apply proportionately to Plums and Grapes.

That this Council expresses dissatisfaction in regard to the manner of the release of information of the programme of shipping space.

Surveyors in U.K.

Mr. Moore moved:—

That the question of the appointment by the Federal Government of surveyors to inspect and report on every shipment of Australian fruit arriving in the United Kingdom be referred to this Council's executive.

Mr. Humphreys seconded. Carried.

Export Certificate.

Mr. Moore moved that item 8 (q) on the agenda:—

"That steps be taken to make the certificate of suitability for export a document which the shipping companies shall accept as proof that the fruit was in good condition when they received it."

be referred to the executive.

Mr. Piggott seconded. Carried.

Visitor from N.Z.

The Chairman introduced and welcomed Mr. Firth, of the N.Z. Fruit Export Control Board.

Mr. Firth conveyed the greetings of New Zealand growers to the Council (applause).

Mr. Firth then withdrew.

Interstate Grading Regulations.

Mr. Thompson (Tasmania) introduced this subject.

After full discussion as to the necessity for raising of the standard of fruit marketed in Australia and the difficulties because of constitutional aspects, a resolution was adopted on the motion of Messrs. Abel and Astell as follows:—

That consideration be given to uniform grading regulations between the various States with the object of raising the standard on the home market.

Position of the Industry.

Mr. Martin reported on behalf of sub-committee as follows:—

We have considered item 14 on Agenda (re Federal assistance in providing new markets) and items 19 (b) and (d) re proposed Federal grants. and our considered opinion is that as the saturation point of markets under existing economic conditions has been reached, our only hope is to ask the Commonwealth Government to so endeavour to alter the existing conditions of trade that they will not be so adverse to the Apple industry.

Mr. Abel moved:—

That this Council is of the opinion that it will be necessary to subsidise the export of Apples and Pears until such time as the German, Continental and other markets are regained. Seconded.

Mr. Herring spoke of possible reciprocal trade in fruit with U.S.A. The motion was carried.

Mr. Flewell-Smith moved:—

That the Commonwealth Government be requested to carry out a thorough investigation of the economics of the Apple and Pear industry with a view to taking the remedial measures necessary to place the industry upon a sound basis.

Mr. Ryan seconded.

The Chairman reported that he had given an assurance to Mr. Stevenson (Secretary of the Agricultural Council) that the Executive would give every assistance possible to the proposed enquiry as outlined by Mr. Stevenson earlier in the conference.

The motion was carried.

Export of Pears.

On behalf of the Pear Committee, Mr. Moore moved that there be no alteration in the present regulations reducing the percentage of russet on Pears (agreed).

The item from N.S.W., "that the Interstate Pear Grading Regulations be adopted as the export regulations" was not approved, but in order to provide that the 5 per cent. tolerance for human error in Extra Fancy should include slight Black Spot, an alteration of the export Grading Regulations be requested, viz., paragraph six in the export Regulations Act now reads, "Pears described as Extra Fancy shall consist of sound, clean, well-formed Pears of one size, and one variety, free from broken skins and from disease." The recommendation was that the words "and from disease" be eliminated from the regulatins. Recommendation adopted.

Mr. Ryan (Tasmania) brought forward that the compulsory use of strawboards on sides of Pear cases be deleted from the export regulations. He submitted that strawboards top and bottom were sufficient.

In the discussion it was pointed out that protection for sides was compulsory with "suitable packing material," and that some States used corrugated paper board, and that the older type of corrugated strawboard which caused discoloration had been superseded by better material.

No alteration to the present regulations was recommended.

Claim for Faulty Carriage.

Referring to an earlier discussion re the levy now collected and used for advertising in United Kingdom.

Mr. Astell moved:—

That it be a recommendation to the Executive to take into consideration the collecting of information re utilisation of the levy for advertising, and that the Executive be empowered to divert the money into a fighting fund for a period of five years for prosecuting claims, and then reviewed. Mr. Humphreys seconded. Mr. Thomson (Department of Commerce) stated this was a matter on which the Minister for Commerce would need to be consulted. The motion was carried.

Another matter put forward was that of the Council sending men with Commercial experience to United Kingdom to advise on possible improvements to the industry, on the same lines as was operating with the Tasmanian State Fruit Board in having Mr. McKinley in London. Noted for consideration.

Federal Grant for Research.

Mr. Brown (Victoria) spoke favorably of the good which had been accomplished as a result of the Scientific Research and Cultural Demonstration work, made possible by the Federal Grant of £20,000. The objective was the production of high quality fruit at the lowest possible cost. The Grant had been operated through State Departments of Agriculture. The Grant had been reduced to £5,000. He moved that this Council press for an increased Grant from the Federal Government for Scientific Research into cultural problems affecting the Apple and Pear industry. Mr. Bailey seconded.

Mr. Thompson and Mr. Ryan spoke in opposition. Mr. Randell supported the resolution. Motion carried.

Mr. Astell gave particulars of damage caused by the Canary Fly. Tobacco extract appeared to be the best remedy, but the cost was excessive. He moved that the attention of the Council for Scientific and Industrial Research be directed to the high cost of nicotine sulphate, with the request that an investigation be conducted as to the cheapening of the product, or research to provide an effective substitute to reduce spraying costs. Mr. C. O. Smith seconded. Carried.

Empire Fruits Council.

Correspondence and reports were tabled.

The Chairman directed attention to the references in his report on this subject. His view was that the Empire Fruits Council as at present operating, appeared to be innocuous. Mr. Brown said that the Empire Fruits Council had achieved some good results, including the winning of the

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443 Adelaide Street, Brisbane.

TASMANIA (Northern Districts)—
Gardner & McKenzie Pty. Ltd.,
64 Cameron Street, Launceston.

TASMANIA (Southern Districts)—
Port Huon Fruitgrowers' Co-op. Association Ltd.,
Davey Street, Hobart.

goodwill of the British producer. A system of planned marketing was necessary. He would oppose the calling of an international conference as yet, but believed it would be ultimately necessary. To make it effective each Dominion Government would need to be represented.

Mr. Blick said the main objective was closer co-operation between the various parts of the Empire in supplying fruit to the British market, and better preferential treatment than was at present operating. This could only be secured by displacing fruit from foreign countries. He did not think an international conference could accomplish much.

It was decided to approve of the continuance of the Empire Fruits Council for another year, and to approve of the approach to the Governments and Colonies for the appointment of their representatives on the Council.

Report by W. M. Carne.

The report for 1937 by Mr. W. M. Carne was tabled. Cordial references to the value of this report were expressed by several delegates, and it was decided on the motion of Mr. Martin, seconded by the Chairman, to place on record the appreciation of the industry for this valuable and illuminating report. On the motion of Messrs. Astell and Martin it was decided to request the Commerce Department to issue this report in pamphlet form for distribution to growers

Federal Grant.

At the instance of Mr. Ryan, there was a discussion regarding the approach to the Federal Government for a grant—either an increase on the 2½d. per case for 1937, or something worth while for the coming season.

The Chairman stated that he and others who attended the conference with Mr. Thorby and O.S.R.A. fully believed the grant of 4½d. per case would be continued. The question now was whether the approach for an increase on the 2½d. per case for 1937 might not prejudice the request for 6d. per case for 1938.

Mr. C. O. Smith said that the decision by the Government to reduce the grant to 2½d. per case had been based on wrong figures, as to the respective quantities of consignment fruit, and f.o.b. sales.

Mr. Ryan moved:—

That the Executive take up with the Federal Government the matter of a grant for next year, and also, if deemed advisable, the request for an increase on the grant for 1937, owing to wrong figures having been supplied to the Department of Commerce, in order to keep the industry on its feet. Mr. C. O. Smith seconded. Carried.

Visits to United Kingdom.

Mr. Piggott directed attention to the resolution at the Adelaide Conference in favor of the Department of Commerce sending State Supervising Officers to United Kingdom to observe the conditions of the arrival of the fruit there.

He moved that the Federal Government be requested to send two State Supervising Officers to United Kingdom to observe the arrival of fruit from Australia, and from other countries for comparative purposes.

Mr. Ryan seconded.

Mr. Carne strongly supported the proposal.

The resolution was carried.

Election of Officers.

In proposing that Mr. J. B. Mills be re-elected President, Mr. Martin stated Mr. Mills enjoyed the full confidence of all; his chairmanship was absolutely impartial, and his Executive work was of the greatest possible value to the industry.

Mr. Thompson (Tasmania) in seconding, spoke in terms of appreciation of Mr. Mills' services.

Carried with applause. Mr. Mills suitably responded.

Vice-President. — Mr. Thompson proposed Mr. J. H. Astell as Vice-President. Mr. Brown seconded. Carried, with applause. Mr. Astell said his best endeavours were at the disposal of the industry.

Appreciation of Mr. L. S. Taylor.

Mr. Moore said the best thanks of the industry were due to Mr. L. S. Taylor for his services as Vice-President during 1936-37, and acting President during the absence abroad of Mr. Mills. Many decisions of a far-reaching character had had to be made. He moved that a hearty vote of appreciation for Mr. Taylor's services be placed on record.

Mr. Mills stated he deeply appreciated all that Mr. Taylor had done. The resolution was carried by acclamation, and Mr. Taylor suitably responded.

Levy for 1938.

On the motion of Messrs. Abel and Brown it was decided that the levy for 1938 be ½d.

Pear Representation on Council.

Mr. Moore moved:—

In view of the increased quantities of Pears exported since the original constitution of the Council, the Executive of this Council examine the voting strength in relation to Pears exported with the object of a more equitable distribution of such voting power and report their findings to the affiliated state bodies for approval or otherwise, so that the matter can be dealt with as item No. 1 on the agenda paper for the next conference.

Seconded by Mr. Weeding. Carried.

Thanks to Secretary.

A resolution of appreciation for the services of the Secretary was recorded.

Granny Smith Apples.

Asked to comment on the early export of Granny Smith Apples, Mr. Carne stated that this variety had come to occupy a unique position on the United Kingdom market as a dessert Apple. There was only one other type of compare with it, and that was Cox's Orange Pippin. Every retailer of any standing in the cities or better-class suburbs wanted the Granny Smith Apple, if available. It was becoming known by name in England, for its bright green appearance gave it a distinctive character.

Mr. Carne said he was certain that if an attempt was made to export Granny Smith as a cooking Apple, it would do the reputation of the variety great harm. In 1936, the early consignments of Granny Smiths from New South Wales were woody, dry, badly pitted, and would not ripen. They would never become dessert fruit. The early Grannies exported in 1937 were better, but the lead given by this State was followed by Tasmania and Victoria, and still more inferior consignments of the variety reached the market.

In his opinion, the Granny Smith must always be regarded as a dessert Apple, and must not be sent overseas until such time as it is known that when put on the market it will be juicy, Mr. Carne added.

Memorial for Granny Smith Apple.

Conference supported a movement to erect a permanent memorial to the Granny Smith Apple on a site close by the actual position of the original tree. Conference decided to recommend the affiliation State organisations to contribute 10 guineas each to the fund.

Departmental Officers Thanked.

Mr. Martin proposed a hearty vote of thanks to the Federal and State officers for their appreciated services.

The resolution was carried with applause, and Mr. Thomson (Department of Commerce) duly responded.

The conference then closed.

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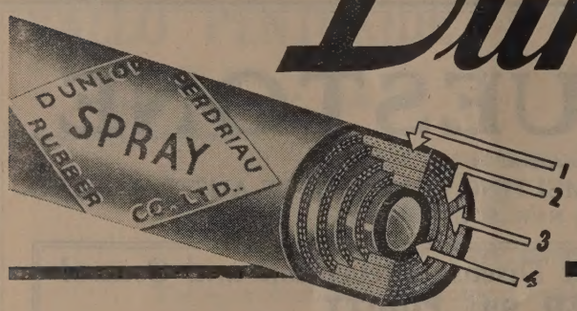

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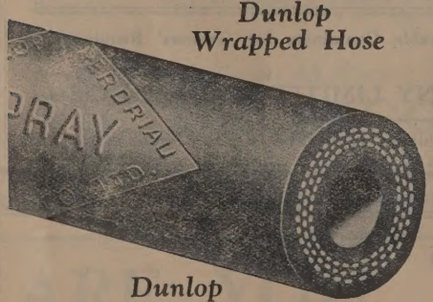

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The Marketing of Australian Fruit in the United Kingdom and Continent

Report by J. B. Mills, President, Australian Apple and Pear Export Council.

WITH reference to the various discussions which took place in London on the matter of Empire duties, as far as one could ascertain it was apparent that there would not be anything of a definite nature available for at least another year, the indication being that the existing preference would remain for that period. Considerable concern was felt at the May meeting of the Empire Fruit Council at the receipt of a cable from Canada advising that information had been received there to the effect that the duties protecting Empire horticulture were likely to be varied, if not entirely withdrawn. The representatives of the Empire Council immediately got in touch with their Government officials, advising them to the effect that the doubt had been raised as to the continuance of the existing duties. Sir William Lobjoit at once approached the British Ministry for Agriculture, but was unable to obtain any satisfaction as to the position.

The general impression left in the minds of the Empire Fruit Council representatives is that it will be very **difficult to retain our advantages as at present arranged.** This matter was further discussed at the June and July meetings of the Empire Council, and an effort is being made to have every Empire Section bring the matter prominently before their Government representatives during the ensuing year.

Agreements are being considered by the British Government with the individual Empire sections separately. Indications in the press already disclose that Canada and South Africa have practically finalised their arrangements, but we have the assurance of the Australian authorities that nothing will be done in so far as Australia is concerned until such time as the industries involved have had the fullest opportunity of discussing the position with them. Nevertheless, it is felt that chances of retaining the existing preferences are extremely remote.

The general impression is that "the powers that be" consider it desirable to have trade relations with the U.S.A. on an Empire basis. The issues at stake to-day are apparently very much wider than the extent of Empire preferences. Africa is apparently prepared to reconsider its present position in order to stabilise gold values, and Canada in order to reach agreement with the United States of America is similarly inclined, and unless Australia can, with the assistance of New Zealand, do something to hold the position, we must face the fact that we shall have to meet open competition in the future. The British trade is very emphatic on this point, even to the extent of anticipating the position in their arrangements for the 1938 season.

It is now for the Australian Apple and Pear Export Council to see what it can do in order to protect our industries. And as to what can be done, in view of the definitely changed outlook, it is very difficult to visualise. One recognises that foreign conditions are chaotic, but Empire conditions are undoubtedly at present sound. Quotas might be the answer; but can anyone believe that a U.S.A. quota, to be marketed during the British and Canadian marketing period only, would receive the support of the British and Canadian producers? Yet this is essential to Africa, Australia and New Zealand if we are to retain the existing marketing period which we now enjoy. The situation is far too vague to be accepted by us with any sense of security, and some assurance should be sought at the earliest opportunity as to what the future is likely to offer us.

Freight Rates.

As already advised, I was successful in convincing the British shipowners that the reduction of threepence per case should be paid immediately on shipment. This should be satisfactory, as it will enable the shipper and grower to trade on a more equitable basis than if the money were held until the end of the season.

Continental Freight.

I have had many discussions at the Conference on the matter of providing a more definite service to Continental ports. I pointed out to the Shipping Conference that as we have signed an agreement for three years we had in the doing of it more or less placed the fate of the further development of our industry entirely in their hands. It was realised that there is considerable difficulty in arranging for steamers to discharge Apples and Pears at Continental ports, as to lift the required quantities of fruit, involved a loss to the companies who agreed to do it, and in this connection I took the liberty of suggesting to the shipowners that they could set aside from their general revenues a fund which would be sufficient to offset any small loss which may be incurred. This matter is, I understand, receiving their earnest consideration, but I do not expect that we will ever hear whether they have agreed to this suggestion or not. The evidence will be our ability, or otherwise, to obtain our full space requirements in this direction.

Outer Ports.

Whilst there has been some improvement in the spread of deliveries to the outer ports of the United Kingdom, there is still room for better distribution, particularly through the port of Glasgow. The merchants there are very anxious to have regular fortnightly arrivals, and certainly the results obtained for the fruit shipped to that port appear to justify our best endeavors to secure this type of service.

Liverpool seems to be reasonably well served. The increased quantities which were discharged at Southampton, in my opinion, served the useful purpose of accelerating the delivery of fruit on the London market, as well as making available reasonable quantities for disposal in Southampton itself.

Whilst the trade were not united as to the discharge of any great quantity through the port of Southampton, it was quite definite that regular arrivals through that port were of an advantage, as the fruit was available for sale two to three days ahead of that which arrived direct at Tilbury.

The German Market.

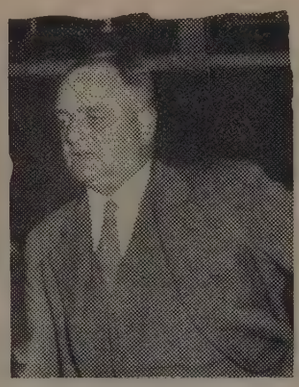
I also took up with the Conference the question of marketing fruit through the port of Hambourg, and, in order to assist me in my discussions with them, Mr. Paul Basedow flew over from Hambourg, and gave me a couple of days in London. The proposal put before the shipowners is that for fruit destined for Hambourg, the shipowners would accept payment in German Reichmarks at the port of destination. The freight would eventually be liquidated to the extent of 60 per cent. in sterling, and the 40 per cent. would represent the freight on a quantity of fruit which would be consumed in Germany itself. There were several interviews with the British shipowners on this question, and at the time of my departure they were taking the matter up with the German shipowners.

If we succeed it would mean a reintroduction into Germany of Australian Apples.

Under existing conditions no Australian fruit is consumed in Germany itself. Their markets are being supplied entirely from the United States of America, the Argentine and Chili, and unless we can arrange to have some Australian fruit available, it will become more difficult when normal conditions prevail to re-introduce our commodity. The German merchants are very sincere in their desire to continue to handle Australian fruit, not that this means any additional profit to them, but rather that they are of the opinion that our fruit was of better quality than that which they are receiving from other sources, and helps to create a greater demand. The method of dealing with the fruit would be for the German merchants to make sales to countries outside of Germany to the extent of 300,000 to 400,000 cases. The proceeds of this fruit being in foreign currency would enable them to pay 60 per cent. or more of the total freight in sterling plus the f.o.b. value of all the fruit.

Further discussions were entered into with shipowners covering the various phases of our industry, particularly with regard to the accumulative arrivals, and also the condition of fruit on arrival. The market undoubtedly broke at the first period when arrivals totalled 900,000 cases in a ten-day period. The low values were further created by a considerable amount of weak conditioned fruit being available during this period. It is very difficult to see what solution we can apply to this problem. The shipowners suggest that, as we have definitely shown some improvement this year in this direction over other years, a further careful survey before arranging our sailing pogramme may solve this problem.

It will also be necessary to keep well before the shipowners, and particularly the engineers of the ships, that it is not sufficient to land fruit ripe, but **firm**—this has more particular application to **Pears.** There were many thousands of cases which



Mr. J. B. Mills.

were delivered ripe and firm, but with no after-life, and this necessitated a rapid disposal for any price that was available. This had a double-barrelled effect on the market—it caused the buyers to doubt the condition of all the fruit, and it also created a low market value to the retailer. There is no logical reason why all the fruit presented for export should not be delivered at the port of destination in the same sound condition in which the ship received it.

Another very bad feature is the **over-lapping arrival of both early and late varieties.** This was evidenced this year more than usual, and was no doubt brought about by large quantities of early maturing varieties being shipped in vessels whose voyage was prolonged beyond the normal period. There were at least two such vessels which took 70 days from loading to discharge. In my opinion this matter can be solved if the Conference will agree to recommend to the authorities in the various States, that certain steamers be excluded from the carriage of the early-maturing varieties. This problem is one which affects Tasmania and Victoria to a greater extent than the other States. It is a matter of very serious moment, and I experienced the situation where buyers were completely ignoring the early varieties and were taking up only late varieties, leaving the first-mentioned to further deteriorate and eventually to be cleared out at slaughter prices.

"Port Jackson."

At the invitation of the shipowners, I visited the "Port Jackson," and saw this vessel discharge a large lower hold stowed entirely without dunnage. Dr. A. J. Smith (British Food Investigation Board), and three assistants travelled in the vessel, and have very complete records of the temperatures taken from a considerable number of points in the hold. It was an extremely satisfactory demonstration as to what can be done in the carriage of fruit when vessels are equipped with the modern type of refrigeration, as the "Port Jackson" has. The cargo turned out practically 100 per cent. perfect, and reflects the greatest credit on all who were associated with this demonstration. In the future a good deal more fruit will be carried in this manner, when ships are better equipped for fruit carriage.

Fruit Discharge.

There is a good deal still to be done in order to have the handling of fruit in the discharge of steamers brought up-to-date. The officers of the various States are continually active in their endeavors to improve these conditions, but there is still a

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considerable amount to be done before completely satisfactory handling has been reached, and an excellent opportunity was afforded to myself, Mr. Turner, from New Zealand, and various other Empire delegates who were present on the "Port Jackson," to demonstrate to shipowners, who were there in considerable force, a serious lack of care which was being taken in the handling of our goods. This matter has been followed up right until I left London, and is one which we must continually keep before the shipowning interests.

Advertising.

This question is one about which it was impossible to obtain any authoritative majority opinion. Mr. Hyland conducts his campaigns in his usual efficient manner. There is, however, considerable doubt as to its effectiveness. I sought the opinion of large numbers of dealers in the trade as to its efficacy, and generally they were of the opinion that our present methods were a waste of money. If the dealers will not supply the shops with Australian fruit, advertising is a waste of time. They further intimated that display posters, etc., were of very little value, pointing out that there were so many countries adopting this method that the novelty of it had completely worn off. The only type of publicity of which the dealers approved was that which took the form of literary articles dealing with the health and food value of the commodity, particularly if it had the backing of the medical fraternity.

Whilst on the subject of advertising, there appears to be a serious lack of co-ordinated effort between the National Fruit Federation and our London advertising office.

In my opinion it is necessary for some committee more directly representative of our industry than the Federation to handle this matter in conjunction with Mr. Hyland. There are a number of distributors in our trade who would be only too willing to assist in this matter, and whose interests are entirely bound up with Australian fruit, and I suggest that at our Conference a proposal should be made to Mr. Hyland in this direction. I do not want my remarks to be taken as a reflection on either Mr. Hyland or the Federation; the latter are so heavily involved in handling commodities from all parts of the world, that it is only natural they cannot devote the whole of their time and attention to watching Australian interests. We represent only 2½ per cent. of the United Kingdom turnover.

Australia House.

During the stay of Mr. McCarthy (Assistant Secretary, Dept. of Commerce) in London, I sought his opinion on many matters affecting our industry, and particularly with reference to my discussions with shipowners. It may not be generally known that this gentleman had, on behalf of his Government and in conjunction with his Ministers, Dr. Earle Page and Mr. Thorby, faced up to a very difficult task in clarifying the very involved position that existed in our shipping industry, and there can be very little doubt that the result, which gives all of our primary industries security at a known freight rate for the next three years, is one for our most sincere congratulation to all concerned.

The trend of freight rates is today decidedly upward, and without this agreement we would be definitely paying higher rates than previously. Fruit freights from North and South America and Canada have been increased by 10 cents per box, and freights generally have increased all over the world. After Mr. McCarthy departed I saw a good deal of Dr. Harrison (C.S.I.R. Research Officer),

THE MARKETING OF AUSTRALIAN FRUIT IN THE UNITED KINGDOM AND CONTINENT—(Continued).

who has taken over from Mr. W. M. Carne, and, from the work he is doing, and with which I came into personal contact, I feel sure we are going to be extremely fortunate. Dr. Harrison is enthusiastic and very painstaking, and I hope that the future will prove his efforts to be of very considerable benefit to both the producer and also the shipowner. Mr. McColl, of the Victorian Agent General's office, is also doing excellent work, and, in fact, most of the States representatives are enthusiastic workers.

There should, however, I think, be a definite link between all the State representatives and Dr. Harrison, in order to completely co-ordinate the reports of the various States officers with those of Mr. Plunkett (Australia House). In this way Dr. Harrison would have a very complete resumé of the information which has been assembled, and which at present is made directly available to the individual States. Mr. McKinley, on behalf of the Tasmanian State Board, was active in his sphere, and we contacted on a number of occasions.

An enormous quantity of Jonathans arrived well below the regulation standard for color, and with a dull and flat appearance, being practically lifeless.

The reason for this is very difficult to ascertain. I personally examined thousands of cases, and I am definitely of the opinion that a good deal of this condition has been brought about by oil spraying and washing, and I suggest that the technical men in the various States should investigate this position exhaustively. It seemed to me that the oil had the effect to some extent of creating a suffocating condition in the fruit, and whilst at the time immediately after the washing the appearance is bright, this is completely lost during the voyage.

Another very serious defect was found in the Pears, and, in particular, in the Bosc variety. A very large percentage of this variety was affected by what the trade in London describe as "wasp-stings." This, of course, is absurd, as we have no wasps attacking fruit in Australia, but, nevertheless, the defects were there in quantity, and it is essential, if we are to keep this variety in popular demand, to overcome this difficulty. The solution may be found by correcting some defect in the acid bath wash. This matter is receiving some consideration from Dr. Harrison, but if the investigation is to be effective it should be made at the Australian end. Mr. Weeding, who was in London, took some most interesting color films of this defect—demonstrating the seriousness of it—and he would no doubt, make them available for display.

Quantitative Restriction.

It will be remembered that at the time I arrived in London considerable pressure was being brought to bear to increase the quantity of fruit to be exported from Australia beyond the first agreed figure. This effort was, no doubt, brought about by the fact that at the time prices were of a satisfactory nature ,and probably from the Australian end there was some reasonable justification to assume that the market would be in a position to carry another 300,000 or 400,000 cases.

On receipt of the cables, several different forms of investigation were adopted. The Tasmanian representatives, both Governmental and of the State Board, made very careful enquiries. I myself sought information from every possible source, with the result that we cabled that, to increase the quantity as suggested would be disastrous, and this was evidenced by the very rapid decline in market values which took place as soon as any substantial quantity was available from Australia.

It was very difficult to find what real justification there was for the fall that took place, beyond the fact that Australian Apples were oversupplied for a short period. The competition from outside was not particularly heavy during this period, and except for the fact that we had late and early varieties mixed together, and poor condition in a good deal of our fruit, the market should have been able to respond better than it did.

And this brings us back to the vexed question of the **Fruit Intelligence Notes**, and as to what can be done in any effective way to check the broadcast of this information is very difficult to see, also what useful purpose its dissemination serves is also difficult to see. It was a common sight to find, both in Covent Garden and in the auction rooms, dealers comparing notes on this information, with the result, in my opinion, that a glut is already created in theory in the minds of the buyers before the fruit is actually on the market. There is no true relationship between these figures, even when they are correct, and the availability of the fruit to which they refer, as is instanced by the fact that some of the vessels carrying large quantities spread their deliveries over a period of from 8 to 12 days—yet the buyer accepts the weekly Intelligence Notes as if the totals referred to therein were available for immediate consumption. If it is insisted that these Intelligence Notes continue to be made available, I strongly recommend that our Council take this matter up officially with the Department of Commerce to see whether some more commercial method can be adopted. I understand that the dried fruits people have found it necessary to do something in this direction, and in discussing the matter with the meat industry representatives in London, they were also of the opinion that the effect of the information published in regard to their industry was anything but beneficial.

Empire Fruit Council.

This body, which has now been functioning sufficiently long to test its efficacy, has not, in my opinion, made the progress that was so enthusiastically anticipated for it. The chief weakness is the fact that the British representation, through the National Farmers' Union, has not been able to obtain the recognition of the British Ministry of Agriculture as the mouthpiece of the Horticultural industry of the United Kingdom. This does not mean that the Ministry does not esteem the representatives, but rather that British Governmental policy is not prepared to accept any advice other than that of the permanent heads of their own department.

Ways and means were discussed recently as to what could be done to obtain this very necessary recognition, and it has been suggested that an attempt might be made to get direct representation on the Empire Council of the Governments themselves. This matter was debated at very considerable length at the last meeting of the Council which I attended, and it will be necessary for our conference to give the matter some careful consideration. If nothing can be done in this direction, it may be necessary to consider whether it is worth while to continue with the existing body. My impressions were that as it stands to-day, it is absolutely innocuous. One of the objectives of the enlarged Council, so it was suggested, would be the calling together of an International Fruit Conference in order to discuss marketing generally in the United Kingdom. This type of conference would need Governmental recognition from all countries represented. Could any good purpose be served?

Co-operation with New Zealand.

In reference to the future workings between New Zealand and Australia, it would appear to be desirable to continue this arrangement. There is no doubt that the trade in the United Kingdom is very impressed with the fact that we have, at least in so far as this season is concerned, worked in harmony. At a time when market conditions were bad, the position was eased to some extent by the New Zealand Board holding back a considerable quantity of fruit, thus opening the way for a quicker disposal of Australian. In referring to this matter at the last meeting which I attended of the Empire Council, reference was made to it by Mr. Turner in the following minute:—

"Mr. Turner reported that the quota agreement between Australia and New Zealand for 1937 season had operated satisfactorily except for the landing of 13,384 cases of Apples ex the s.s. "Donau" on August 13, which was in excess of the agreed quantity and had a depressing effect on the market at the time when endeavours were being made to steady prices. There were also 2,354 cases of Pears in this ship." (London, August 25, 1937).

S.S. "Donau."

The arrival of fruit by this vessel in the United Kingdom, after it had definitely been arranged to discharge at Rotterdam, left a very bad impression on the market. If this condition of affairs is allowed to continue, there can be no doubt that Australia's prestige in the fruit trade will be considerably lowered.

Buyers had already received the fullest assurances that no further shipments were on the way, and this led them to buy off the later boats more freely than would otherwise have been the case. The fruit ex the s.s. "Donau," whilst in good condition, did not yield satisfactory prices. It is not so much the quantity that matters in this particular instance, as it was the feeling left in the minds of the operators as to whether our information can ever be considered reliable.

The Future of the Industry.

I am still of the opinion that Australia can retain a very substantial market in the United Kingdom and on the Continent, but this can only be done on the basis of quality. There has been a very marked improvement in this direction this year, but the quantity of inferior fruit going forward is still of sufficient magnitude to affect the good name of Australia generally. At least 40 per cent. of the Apples which went forward this year were not of sufficiently high standard to justify sound market values against the competition of so much magnificently prepared fruit of all varieties from foreign countries. Western Australian and Tasmanian Apples were outstanding with regard to quality where the pack was good. I saw very little South Australian fruit, but what there was, was very nicely put up. Victorian Jonathans were far below the standard of her best years, which may have been attributable to seasonable conditions. The Granny Smith Apples from most States continued to maintain their superiority over all other varieties. Every care should be taken to see that nothing is allowed to happen because of careless harvesting or laxity of inspection to cause this Apple to lose the very high appreciation in which it is now held in the United Kingdom markets.

The coming season will, undoubtedly, face us with very severe competition from Canadian and U.S.A. Apples. The crop of exportable Apples available from these centres is greater than has ever been known before, and at the time that I left the United Kingdom they were offering as low as 80 cents f.o.b. for U.S.A. fancy grade—this refers to the Jonathan variety. We will be afforded some slight protection by reason of the fact that, at the time that we received a reduction of threepence per case on our rates of freight, the Canadian and U.S.A. shippers had to face an increase of 10 cents—equal to fivepence per case.

It was quite apparent, however, that the U.S.A. packers are determined to meet the market. The competition which we will have to face will be the Winesap variety, and this crop is, unfortunately, very abundant, particularly in the lower counts. It will, therefore, be necessary to exercise the greatest caution in so far as Australia is concerned to see that we ship nothing but the highest quality fruit. If our early arrivals show any lack of quality, the buyers will immediately return to the Winesap variety in preference to our Australian commodity, and when this happens it takes a considerable time to recover our position. The intrinsic quality of our fruit is supreme, and if the grading and packing are further improved, we can, with a more even distribution, hold up our end.

I regret that this brief report has not a more optimistic note, but it represents my considered opinion as the result of careful investigation, and I commend it to your consideration.

(Sgd.) J. B. MILLS.

528 Collins-street, Melbourne.
14/10/37.

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The Australian Apple and Pear Export Council

Annual Report Presented at Sydney Conference, October 26, 1937

Review of Many Important Subjects.

THE annual report of the Australian Apple and Pear Export Council was presented by the President, Mr. J. B. Mills, at the annual conference, held in Sydney on October 26 last. It covered 10 pages of type and included many subjects of interest to the industry. For the information of our readers we give an abridged review of some of the more important matters covered.

The Quota System and Contact with New Zealand: The Adelaide Conference decided to send only a defined quantity of Apples to the United Kingdom in the 1937 season, irrespective of any agreement with New Zealand. Delegates visited New Zealand and made an agreement with the New Zealand Fruit Export Control Board, when mutual quantities were decided upon as follows:—Australia 3,750,000, New Zealand 1,150,000, with the proviso that any shortage by one country could not be picked up by the other country. The proportions agreed to were the same as previously, viz., 76½ per cent. Australia and 23½ per cent. New Zealand. The terms of the agreement were debated at length by this Council's Executive and finally adopted as applicable of course to the 1937 season only. However, urgent requests came to hand for representations to be made to New Zealand and to London that Australia, with its heavy surplus of exportable Apples, should be permitted to pick up the New Zealand shortage. Cables were exchanged with the President, Mr. Mills, and finally advice was received that, after full enquiry from responsible Australian authorities in London and also the National Federation in London, the original decision of the Adelaide Conference should be adhered to. An interim report on this subject was received from Mr. Mills and circulated to State Associations.

Considerable difficulties were experienced in the 1937 season in administering the quota system in Australia. The disastrous storm in Western Australia upset the shipping programme, and the total quantity originally applied for by Western Australia could not be filled. Such quantities were progressively advised by Western Australia, enabling other States to increase their quantities according to the shipping programme available.

Self-Registering Thermometers: The Executive took up with O.S.R.A. the subject of self-registering thermometers in ships' holds; the reply was circulated to State Associations.

O.S.R.A. further suggested that as Dr. A. J. Smith, of Cambridge, would shortly be in Australia a full discussion be held with him on all problems relating to fruit transport. This information was circulated to State Associations. The W.A. Fruitgrowers' Association wrote further directing attention to self-registering thermometers being installed in certain ships which had called at Albany to lift fruit cargoes. It was understood that these self-registering thermometers were perfectly reliable and were a great convenience in keeping the records. The matter was placed before O.S.R.A.

Trade With the Continent: Owing to international difficulties the German market for Apples, previously so valuable to Australia, is still closed against us, and this problem is a major one.

The Department of Commerce advised that Trade Agreements had been made with Czechosovakia, Belgium and France. We furnished State Associations with copies of the form of the export certificate required.

In March we received word from Western Australia that the Austrian Government was only granting import licences for American and Argentine Apples, the quota from Australia being indefinite. We took up this matter with the Commerce Department, the reply being received that the Austrian authorities, although they would not issue licences far in advance, might, when the time came, make a fair issue of licences for shipment of Apples from overseas Dominions, including Australia. We understand that considerable disabilities were suffered last season in this connection through consignments in transit to Austria being stopped, necessitating the return of the fruit to London. This indicates at least some of the disabilities which exist in relation to Trade with the Continent.

There were certain practical difficulties in the way of shipping fruit to France last season (including that of lack of knowledge as to the quantity sent from English ports to France). However, it is of interest to know that after several seasons in which the French market has been closed against Australian fruit, the way is now open for the resumption of trade, even on a limited scale. Exporters will note, however, that conditions still remain (1) the use of printed wrappers bearing the word "Australia"; (2) certificate guaranteeing freedom from San Jose Scale; (3) limitation of total quantity and quarterly quotas.

Printed Wrappers: At the Adelaide Conference, consideration was given to the request from the London Director of Australian Trade Publicity, Mr. Hyland, that all Apples and Pears exported should be enclosed in wraps bearing the word "Australia" or a typically Australian design. Summed up, the proposal for printed wraps is not received favorably just now in view of heavy costs for paper.

Advertising in the United Kingdom: This subject received much attention at the Adelaide Conference. The point re joint educational publicity in England as compared with the present system of advertising Austrailan Apples and Pears was considered by the Australian Overseas Trade Publicity Committee and also referred to Mr. Hyland in London. Mr. Hyland reported adversely regarding joint educational publicity, and advocated the present system of advertising, as in keeping with approved trade practice with competing countries. This subject is again referred to the Council for further consideration.

Trade with the East: During a Sydney session of the Executive meeting in December, 1936, a conference was held with representatives of shipping firms engaged in trade with India and the East. The Commission appointed by the Federal Government presented a lengthy report re trade with the East, in which the sending of unregulated consignments to the near East was adversely commented upon.

The Victorian Fruit Marketing Association appointed a committee to enquire into this matter, with the result that the findings of that Committee were circulated to the State

Associations in order to provide a basis of discussion at the 1937 Sydney conference. The attention of those interested in the Eastern trade is specially directed to this subject so that opportunity shall be provided for full consideration of present problems and as to devising means for increasing the trade.

Shipping and Freights: A deputation from this Council waited on the O.S.R.A. on December 21, 1936, when (a) a reduction in freight was requested; (b) better service in the matter of fruit-carrying steamers; (c) better handling at London; (d) the complete filling of holds at one port, and that ships should not be loaded with Tasmanian fruit on the inward voyage—involving 90 days in transit; (e) wilting of Apples apparently through over-ventilation of holds; (f) improvements in dunnaging. Consideration was promised by O.S.R.A. to these requests.

Pear Export Boxes: At the Executive meeting in December, 1936, the shipping strike in U.S.A. was mentioned in connection with the possibility of a shortage of standard Pear cases. As the export season progressed, a shortage of standard Pear cases became apparent, and an application was made to the Commerce Department on the lines indicated. After making due enquiries the Department concurred in the request.

Pears for New Guinea and Pacific Islands: The Department of Commerce raised a point re permission to export Pears to New Guinea and the Pacific Islands in the Standard bushel case. As the Adelaide Conference had decided in favor of Pears for "the East" going in the Standard bushel case, this was accepted as covering the destinations referred to by the Department.

"Port Brisbane" Case: The Council supported the request from the Batlow Co-operative that an appeal for funds be made to State Associations accordingly. Subsequently a compromise was arrived at by which the shipping company was to pay the amount of the claim, each side to pay its own costs. The amounts subscribed by State Associations were needed by the Batlow Co-operative in this connection. In agreeing to the compromise the point was stressed that this is no way prejudiced the original claim nor the value of the judgment. An important aspect of this legal case was the fact that this was the first occasion on which a case of this character had been tried in an Australian court.

Australian Fruit Marketing: Because of earnest representations in relation to the marketing of Apples in Australia, an interstate conference was convened to deal with Grading Regulations and other matters. The conference was held at Melbourne on April 13, 1937. The difficulties in the way of altering the gazetted regulations re grading were found to be almost insuperable, although the idea was stressed that grading regulations should be reviewed each season.

The conference decided to at once approach the Federal Government for financial assistance to the extent of £7,500 to conduct a publicity campaign in Australia.

Finally the Government agreed to provide up to £5,000 on a £ for £ basis with contributions from State Governments and others. This subject is further dealt with in the report of the publicity committee.

Collaboration with Agricultural Council: We placed before the Commonwealth Agricultural Council the resolution re collaboration with this Council to ensure the fullest measure of co-operation, and have received a reply stating that any representations we have to make should be through the Department of Commerce.

Federal Grant: When attending the Conference with O.S.R.A. called by Mr. Thorby, Assistant Minister for Commerce, the promise was made by Mr. Thorby that, seeing the proposed freight reduction would not apply till 1938, the Government would see the industry through the 1937 season. There was a definite understanding on the part of all delegates present that the grant of 4½d. per case would be continued for the 1937 export season. On an approach being made to the Government for the fulfilment of this understanding, unexpected difficulties were encountered. The Department sought for details as to the comparative quantities of fruit bought for export and fruit sent on consignment. The final outcome was the making available of a grant of 2½d. per case on Apples and Pears exported in the 1937 season, plus an amount to continue research work, also up to £5,000 for publicity in Australia—a total of £65,000.

Export Certificates: We took up with the Department of Commerce the matter of export certificates in order that these could be so signed as to be admissable as evidence in courts of law.

The Department replied, after a consultation with Law Officers of the Crown, that it had been decided to amend the Regulations so as to permit an "Officer" as defined in Section 3 of the Act, to have authority to sign the forms of certificate in the second schedule. Accordingly the Regulations were amended to make this provision, which would thus allow each certificate to be admitted as evidence in Court of Law.

Trade with Canada: We received from the Department of Commerce a report drawn up by the Australian Trade Commissioner in Canada concerning recent shipments of Australian. Apples and Pears into that Dominion. The report dealt with size and marketing of cases, varieties, etc., and copies were circulated to State Associations.

Dunnage and Stowage: At the end of December last we received word from the Council for Scientific and Industrial Research stating that scientific officers of the British Food Investigation Board were coming to Australia and New Zealand to conduct commercial tests with Apples stacked in solid blocks (without dunnage) in the M.V. "Port Jackson," which was fitted with latest refrigerating machinery and requesting this Council to give its concurrence on behalf of shippers.

We replied cordially agreeing with the principle of scientific research and offering co-operation in every way, but pointing out that it was quite impossible for this Council to give "concurrence" on behalf of shippers, that the consent of individual shippers was necessary and that in our opinion it was the responsibility of shipowners to provide refrigerated accommodation to deliver fruit in good order.

We circulated copies of the correspondence to State Associations, and our attitude was endorsed, at the same time facilities were proffered to assist the scientists. After further correspondence with the C.S.I.R. and contact with Dr. Vickery, one of their officers, we endeavoured to facilitate the work of the scientists as far as possible, and subsequently assisted with arrangements for Dr. A. J. Smith, of Cambridge, who was in charge of the experiments, to enable him to complete his programme. Finally, the M.V. "Port Jackson" left with experimental chambers. The increased storage space because of absence of dunnage was 4 per cent. The experiments were quite successful.

Empire Fruits Council. Reports of meetings of the Empire Fruits Council were received from Mr. Ross, and copies were circulated to State Associations. The activities of the Empire Fruits Council were observed with interest and appreciation, and the efforts of that Council to obtain official recognition were sympathetically noted. This subject is further dealt with in the report of the President.

Export Levy: In July the Commerce Department wrote stating that the decision of the 1936 conference re collection of export levy on Apples and Pears to all overseas destinations had been made law, but pointing out certain difficulties which had been experienced with regard to the collection of levies under this and other Export Charges Acts and urgently requesting advice whether it was desired to collect levies on ships' stores and on small consignments where the levy did not exceed 1/- or 2/-. A reply was sent agreeing to the deletion of the two items mentioned by the Department in relation to the collection of the levies.

Research Officer in London: Appreciation is expressed for the very comprehensive reports received, per courtesy of the Department of Commerce, from Mr. W. M. Carne, Research Officer of the Council for Scientific and Industrial Research. On the retirement of Mr. Carne from that position, Dr. Harrison was appointed and arrangements were made as far as possible for Dr. Harrison to contact State Executives on his voyage to London. The President has reported pleasing contact with Dr. Harrison in London. We shall be awaiting with considerable interest the reports from Dr. Harrison regarding the out-turn of our fruit in United Kingdom markets.

State Supervising Officers: We placed before the Department of Commerce the request from the Adelaide Conference that provision be made for State Supervising Officers to visit the United Kingdom. The Department replied stating this matter would receive consideration.

SELLING SURPLUS APPLES.

37,000 Stores Co-operate.

American Apple growers have been assured by the National Association of Food Chain Stores that their 37,000 stores throughout the country will give every assistance in disposing of the heavy crop of Apples this year. Five weeks will be devoted to special promotion of sales and display of Apples.

Other groups of grocery stores, not affiliated with the Chain Stores Association, also promise co-operation. The campaign will be supplemented by national advertising through newspapers, hoardings, radio, talkies and other forms of publicity.

Manure Subsidy: As instructed by the Adelaide Conference an approach was made to the Prime Minister requesting that the Manure Subsidy be reinstated at 15/- per ton instead of being applied at the announced reduced figure of 10/- per ton. A reply was received that fullest consideration was given to this matter when the budget was being prepared, and it was regretted in the light of all the circumstances that a continuance of the subsidy at 15/- per ton could not be approved.

Thanks: We would like in this report to express thanks to all who have assisted the Council in its great work, in particular the Department of Commerce for prompt attention at all times, not only in our general activities but also in regard to the launching of the Publicity Campaign, also State Departments of Agriculture, the New Zealand Fruit Export Control Board, Overseas Shipping Representatives' Association, the Council for Scientific and Industrial Research, British Food Investigation Board and the Cambridge Low Temperature Station.

WEEDS ARE A GUIDE.

Show Fertility of Soil.

Field Day at Vermont.

Orchardists need not wait until their trees blossomed or bore fruit to learn how fertile the soil was; the weeds and grass in Autumn and Winter would tell them. That advice was given by the chief inspector of horticulture (Mr. F. M. Read) recently to more than 200 people at the biggest field day held in Victoria.

The appearance of the trees was a further pointer, Mr. Read said. A deficiency of nitrogen produced a poor yellow green color and stunted growth. A deficiency of phosphorous resulted in poor growth, and a rather dark green color. A deficiency of lime caused leaf blotching.

Mr. F. G. Beet, at whose Vermont orchard the field day was held, urged the State Government to make more money available for research work in orchard problems.

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of Apples and Pears

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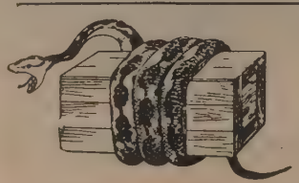

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Dried Fruits News and Notes

Processing of Dried Apricots

The "Moist Pack" Universal

THE following article was prepared by Mr. W. R. Jewell, M.Sc., F.I.C., Agricultural Research Chemist of the Victorian Department of Agriculture and was used by the Interstate Fruit Processing Committee, of which Mr. Jewell is Chairman.

WHEREAS a few years ago Apricots were packed bone-dry, it has now become practically a universal custom to market a "moist" pack, which is preferred on the overseas market, and which also has become established at home. The production of a satisfactory moist pack Apricot involves certain processing problems which have not yet been solved by all packing sheds, as experience has shown that packers have not been entirely successful in producing a satisfactory product which will retain its colour on storage. Attention is therefore drawn to the following points which have an important bearing on the question and which must be observed to obtain the best results in moist packing.

Grading.

Grading in the packing shed is invariably required if an attractive and uniform product is to be obtained. Reports from overseas markets stress the necessity for more consistent grading, both for color and size. In addition to size-grading, picking out of faulty pieces by hand seems essential.

Moistening.

Moistening may be accomplished by immersion in water at 180 deg. C., or by steaming followed by partial drying. The time of immersion or steaming depends on the condition of the Apricot and can be determined only by trial. There is a limit to which the moisture can be raised consistent with successful keeping qualities during export or storage. This limit is from 20 to 25 per cent. of moisture and the lower limit should be observed for export fruit. It would appear from this that the determination of moisture in processed fruit should be a regular procedure in a packing shed; it is difficult to see how otherwise the moistening process can be adequately controlled or a uniform product turned out from day to day. At present there is no very rapid method for determining moisture content, but experiments are now under way to ascertain whether the electric moisture meter can be adapted to this purpose

Sulphur Content.

Undoubtedly the sulphur content is the outstanding factor concerned with the retention of a bright colour in moist pack Apricots, which lose sulphur dioxide more quickly than do bone-dry ones. Last season a number of instances of darkened Apricots were examined and the sulphur dioxide was invariably about 1 grain per pound or less. There was, in fact, a correlation between degree of darkening and sulphur content. It is therefore essential that moist packed Apricots, immediately after processing, should contain right up to the limit of 14 grains sulphur dioxide per lb.

In order to ensure that such is the case, two courses are open. Either oversulphured dry Apricots should be selected, or resulphuring after processing must be employed. In view of the widespread adoption of moist packing, it is obvious that the latter procedure must generally be followed. In either case, it must be apparent that a knowledge of the sulphur content both before and after processing is an absolute essential if a uniform and satisfactory product is to be obtained. Without such knowledge moist packing must be haphazard, with the frequent cases of deterioration and wastage experienced in the past with hit-and-miss methods.

A rapid workshop method has been evolved for which technical training is not necessary, and which appears to be sufficiently accurate for the purpose in question. Packers are urged to use this, or some other method, to determine the sulphur content of every consignment of Apricots prior to treatment, and to check the accuracy of the resulphuring by a further test after resulphuring. It is even desirable to give a further sulphuring if the product does not contain approximately 14 grains per lb. The precedure to be adopted for resulphuring cannot as yet be closely prescribed, but must be determined by experience, as the amount of sulphur and time of exposure must depend on the sulphur content of the dry Apricots and on the extent of moistening. After collecting data for some time correlating sulphur content of dry Apricots with moistening and resulphuring details, it should be soon possible to lay down a satisfactory procedure suitable for any given type of dry Apricots.

Storage.

From statements made earlier, it will be obvious that moist-pack Apricots tend to deteriorate relatively quickly and therefore arrangements should be made for their prompt sale on arrival at destination. Unnecessary storage should be avoided, and in spite of alleged difficulties, it is advisable to moist pack progressively throughout the year as demand requires, preferably immediately prior to sale. If all Apricots are moist-packed at the end of the drying season, wastage must be expected with those subjected to prolonged storage.

Evidence is also available that climatic conditions during storage play an important part. Apricots containing 18 per cent. moisture and 12 grains sulphur dioxide per pound retained their color and generally attractive appearance when stored for about four months in Melbourne; but a portion of the same box darkened to an unmarketable degree when stored for the same period in the north of Queensland. It would appear that no attempt should be made to store moist pack Apricots under such conditions and that dry pack Apricots are preferable and should be advocated. Storage under dry, well-sheltered conditons gives best results.

Salvaging Darkened Fruit.

At the request of the Australian Dried Fruits Association, an investigation was undertaken to ascertain if badly darkened fruit could be so treated as to restore its original bright color. After trying a number of treatments it was found (rather contrary to expectations) that immersion in warm water for about 10 minutes, followed immediately by resulphuring, restored the bright color to a remarkable degree even in the case of very dark fruit. Although the treatment, as would be expected, does not produce as attractive a product as originally, it was sufficient last

season to render marketable a very large number of boxes which had been classed as unsaleable owing to the development of a dark color.

In this treatment, Apricots should be classed, as far as possible, according to color, and Apricots of one color treated separately. An inspection at intervals during sulphuring will indicate what degree of sulphuring is necessary. After treatment, hand picking will probably be necessary to eliminate the few pieces which have not responded to treatment, and which should be included with the next lot treated.

In Conclusion.

Two main points should be stressed It is definite that a satisfactory and uniform product cannot be obtained without controlling both moisture and sulphur content, which is impossible without some degree of chemical control. In the second place deterioration of moist-pack Apricots must be expected on storage; therefore process only according to market requirements.

BREACHES OF THE DRIED FRUITS ACT.

Three Growers Fined.

Considerable public interest was shown at the Griffith (N.S.W.) Police Court on Wednesday, October 20, 1937, when the N.S.W. Dried Fruits Board proceeded against three growers on the Murrumbidgee Irrigation Areas for having sold dried fruit without having passed it through a registered packing shed.

The growers prosecuted were James Cicci, Alexander Norman McPhee and James Patrick Fallon, all of Griffith.

All three were convicted and in each instance the following penalties were imposed:—

£10	0	0	Fine
0	8	0	Costs
1	1	0	Professional expenses
6	9	2	Witnesses' expenses.
£17	18	2	Total.

or in default thirty (30) days' imprisonment with hard labor.

The investigation which led to the prosecutions was conducted by Inspector R. G. Birt, who is attached to the staff of the South Australian Dried Fruits Board and who was loaned to the New South Wales Dried Fruits Board for the purpose.

"Yes, we spent our holiday touring in the South. It was beautiful down there."

"Motored down, eh? Well, you must have passed some glorious scenery."

"Oh, we must have. Why, we averaged well over 400 miles a day!"

Renmark Jubilee Show

Record Entries and Attendance.

RENMARK is to be congratulated upon its Jubilee Show that was opened by the S.A. Minister for Agriculture (Mr. A. P. Blesing), on October 6. A record attendance was reported and entries in most classes were up on any previous years.

Messrs. F. R. Arndt and F. H. Metters judged the dried fruit exhibits and stated that although the competition was not as great as it should have been, the quality shown was good, and was an improvement on that exhibited last year. The awards were:—

The Awards:

Dried Pears (prizes by Renmark Fruit Growers' Co-op.), J. G. Miller, E. A. Halliday; **Apricots** (prize £2/2/- by Mr. H. G. Evans), J. G. Miller, Mrs. D. Winder; **Peaches** (prize by Renmark Fruit Growers Co-op.), C. Hill, J. G. Miller; **Raisins** (prize £2/2/- by Renmark branch A.D.F.A.), L. J. Gillespie, E. A. Halliday; **Sultanas** (trophy £2/2/- by Gerrard Wire Tying Machine Co.), L. W. LeLeu, C. R. Trimper; **Currants** (prize £2/2/- by Walter & Morris Ltd.), L. W. LeLeu, Mrs. D. Winder; **Malagas** (prize £2/2/- by Mr. C. W. Roy), L. W. LeLeu, Mrs. F. J. Elliott; **Collection Dried Fruits**, J. G. Miller, L. W. LeLeu.

Points Trophy (by "The Murray Pioneer")—L. W. LeLeu and J. G. Miller tied with 20 points each (given on basis of 5 for first, 3 second and 1 unsuccessful entry), and accordingly two trophies will be given.

WAIKERIE OPTIMISTIC.

23rd Annual Meeting.

Mr. C. B. Williams (chairman of directors) presided over the 23rd annual meeting of shareholders of the Waikerie Co-operative Fruit Co. Ltd. In presenting the annual report, the chairman stated that, although the frost and rain during the season had materially reduced the tonnage of dried fruits delivered, the company, by the installation of the latest type of machinery for processing dried fruits, had been able to present a satisfactory balance sheet, which permitted it to make reasonable rebates to growers on the fruit treated.

As there were no further nominations received, the retiring directors, Messrs. R. C. Howells, J. B. Murdoch, and C. B. Williams, were re-elected for the ensuing two years.

The meeting passed a vote of thanks to the directors for the satisfactory manner in which the business of the company had been directed during the year.

Tasmanian News and Notes

Blossoming – Spraying and Pests – Re-working

A SUMMARY of information received by the Chief Horticulturist from the District Orchard Inspectors, together with other matters relevant to the culture of fruit follows:—

Weather and Blossoming.

Temperatures during the month were above average, whilst the rainfall, though below average in a number of districts was evenly distributed and growth in consequence was rapid. The following rainfall satistics supplied by the Meteorological Bureau indicates the position in the main fruit areas—

Hobart: 187 as compared with the average of 207 points.

Launceston: 247 as compared with the average of 293 points.

Franklin: 312 as compared with the average of 340 points.

Warm weather early in the month brought on the Pear blossom very rapidly, this was generally heavy and with good conditions for pollination, promises to yield a large crop. Several frosts in Northern areas are said to have caused a certain amount of damage in some districts. Apricots have set an excellent crop, and the young fruits have developed very quickly indeed. In several districts slight frost damage is reported to have caused thinning. Although a hand thinning is indicated, growers should not attempt this until the normal drop has been completed. The weather conditions already detailed have resulted in bringing the Apples into blossom from 10-14 days earlier than was the case last season. In spite of last year's crop an excellent show is in evidence, though it is of course too early to hazard even a guess at the possible set.

Spraying and Pests.

No difficulty was experienced in the application of sprays and both the "green tip" and "pink" were carried out under excellent conditions. It was noticed that in the Derwent Valley areas the "green tip" was often omitted from the schedule, whilst in the Huon "dormant" oil applications were the exception rather than the rule this season.

The "canary fly" is hatching freely in all fruit districts, and appears to be earlier on the move than was the case last year. This may actually turn out advantageously, for it means that the regular "pink" lime sulphur spray, if driven up under the leaves will give a very good kill, and if this is followed by the recommended nicotine (1 pint—80 gallons) very few insects should escape. The "canary fly" is in evidence in all districts, but is worst at Bagdad, New Norfolk and Glenorchy.

It is at the present time that the green aphis and black aphis on Peaches and Cherries should receive primary consideration; nicotine sulphate sprays applied now will give a very much more satisfactory control than if the leaves are left until later when leaf crinkling and curling has taken place.

Packing Classes.

These have now been concluded, and during the next week or two the final tests will be carried out, and the six representative cases from each school cool stored for the Hobart show.

Re-working.

Grafting of Apples is in full swing throughout all fruit districts; rather more is being undertaken than was at first intended, and supplies of scions have been exhausted. This season French Crab is amongst those varieties which are being worked; Granny Smith, Delicious and the red bud sports are the main scion varieties in demand.

For early shippers Worcester Pearmain is being increased by a number of growers and should prove easily the best choice for that period.

AGRICULTURAL MACHINERY.

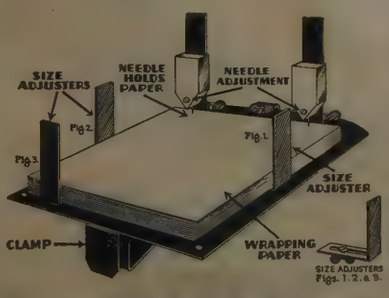
International Harvester's New Factory.

45 Acres at Geelong.

As a mark of faith in the future of agriculture in Australia, the International Harvester Company of Australia Pty. Ltd. has just acquired, from the Geelong Harbor Trust, an area of over 45 acres on Corio Bay, upon which they plan to erect an up-to-date factory for the manufacture of agricultural machinery.

In reference to the Company's service to the agricultural community, said Mr. G. L. McHenry, managing director of the company, it is pleasant to recall that McCormick and Deering agricultural machinery has been closely associated with the development of agriculture in Australia since the early colonial days, first through importers, then through the company branch houses, which were established nearly half a century ago, and finally through the International Harvester Company of Australia. The establishment of this new factory provides another link that will assist the company to meet the requirements of, and its obligations to, many thousands of its Australian customers.

The Improved "FASTPAK" Paper Holder



Has now been improved by:—

Providing a bracket attachment which enables the machine to be clamped on either the Grader or box.

Adjusters have been extended to allow the insertion of a full ream of paper at the one operation.

Double-Needle Control ensures that there is no waste or unsightly torn corners.

Adjustable to take various sizes of paper.

Remarkable for its speed and smoothness and definitely Improves Packers' Tallies.

Manufactured by and obtainable from—

Southern Victoria Pear Packing Co. Ltd.

BLACKBURN, VICTORIA

or Interstate and District Agencies.

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7 Murray Street, Hobart, Tasmania

T. W. KIMBER, Managing Director.

CITRUS NEWS & NOTES

Control of Citrus Diseases

Spray Programmes for Scab, Melanose and Black Spot

THE time for application of sprays for control of scab, melanose and black spot of citrus is due. In each case, write officers of the Biological Branch of the N.S.W. Department of Agriculture, it is important that the fungicides be applied at the particular stage of blossoming recommended, and that a complete, uniform spray cover is obtained on the young fruits.

Scab.

Lemon scab may be controlled by spraying with Bordeaux mixture (6-4-100-½) as soon as possible **after half, but before all the petals have fallen** from the blossom. One spray in October, if efficiently applied, will keep the main-crop fruit free from scab throughout the season, and will also serve to minimise the infection on fruit from subsequent blossomings. In addition it is usually necessary to make another Bordeaux application in January, February or March on the first reasonably heavy blossom which develops in order to provide additional protection for fruit from later blossomings.

Melanose.

Citrus fruit of all types may be kept free from melanose by spraying with Bordeaux (6-4-80-½) **immediately after all the petals have fallen from the flowers.** This disease is most severe on fruits borne in the lower parts and in the inside of the tree, and particular attention should therefore be given to the lower and inside branches when the sprays are being applied.

Where Lemons are attacked both by scab and melanose, it is hardly worth while making separate spray applications for each disease. The earlier spraying recommended for scab control will be found to provide reasonably good control of both diseases. Similarly, the first spray for black spot control in Valencia Oranges also provides reasonably good control of melanose.

Black Spot.

Good commercial control of black spot of citrus is obtainable by spraying the trees twice with Bordeaux (4-3-80-½), The first spray is applied **when practically all the petals have fallen from the northern side of the trees,** but an appreciable amount of blossom still remains on the southern side; **the second spraying is made eight to ten weeks later.**

The two Bordeaux applications necessary for black spot control unfortunately lead to spray injury on Valencia Oranges. This injury varies considerably from orchard to orchard, and it is suggested that growers proposing to employ the black spot control programme for the first time should spray only a portion of their orchard in order to test out the seriousness of the injury factor under their own special conditions. The injury consists of a reduction in fruit size and color, and a tendency to coarsening of the fruit, increased scale insect infestation, and sometimes also reduction in vigor ("hardening") of the trees.

A large number of possible substitutes for Bordeaux mixture in black spot control are being tested out under orchard conditions, but no alternative spray can yet be recommended.

Exanthema.

Mention should finally be made of exanthema. This disease is due to copper deficiency in the trees, and, in the occasional orchards in which it now occurs, may be cured by spraying with Bordeaux mixture at any time. The sprays recommended for scab, melanose or black spot will also check exanthema.

The Dicky Rice Weevil in Citrus

Control Measures

CITRUS growers who have not yet undertaken control measures for the dicky rice weevil (Maleuterpes phytolymus), in those parts of the coastal area where the pest occurs, are urged, in the N.S.W. Agricultural Gazette, not to neglect the banding of their trees with a tree-banding mixture, in order to prevent the weevils from ascending the trunks of the trees. Where this is not done the trees may be severely damaged by the adult weevils which emerge from the soil during September and October.

The fruit is attacked soon after it sets and the greater part of the injury is caused during the following three months. Where trees become extensively infested the surface of the fruit may become marked with a network of irregular furrows, which darken as the fruit ripens. The injury to the foliage is most serious on young or re-worked trees as the growth may be seriously retarded. The larvae which live in the soil and feed upon the roots do not cause appreciable damage to the trees.

The control recommended is to band the trees with a sticky tree-banding material which prevents the weevils from crawling up the trunks and gaining access to the fruit and foliage. The banding material should be applied with a flat stick, so as to form a ring about two inches wide and from one-sixth to one-eighth of an inch in thickness.

When the trunk is not exposed to the direct rays of the sun the banding material may be applied directly on to the bark; otherwise it is advisable first to tie a strip of grease-proof paper around the trunk before applying the banding material, in order to prevent possible bark injury. Where the banding material is applied directly to the trunk it should not be placed in exactly the same position each year.

From time to time the surface of the bands should be freshened by rubbing, or, where necessary, by the addition of a little more banding material.

It is advisable to apply the bands as high as possible on the trunks below the main branches in order to minimise the possibility of their becoming coated with dust, leaves, etc. The lower branches should be pruned so that they do not come within at least six inches of the ground, and all weeds and grass should be removed from beneath the trees in order to prevent the weevils from reaching the branches without crawling up the trunks.

Chilean Nitrate of Soda

Chemically Ideal
Mechanically Perfect
Promotes Vigor
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The **NATURAL NITRATE NITROGEN** Fertilizer with the vital elements in **NATURE'S OWN BLEND AND BALANCE.**

GUARANTEED PURITY 98/99%

100% EFFICIENT

Prevents soil acidity. Is completely soluble. The **NATURAL NITRATE NITROGEN** being immediately available to the plant.

NOT A SINGLE GROWER WHO HAS USED IT HAS ANYTHING BUT PRAISE FOR CHILEAN NITRATE OF SODA.

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Enquiries—

CHILEAN NITRATE OF SODA

G.P.O. Box 2037 L Sydney

Exports of Citrus Fruits—1937

Increase Over 1936

THE quantities of Oranges and Lemons exported from Australia during the first nine months of 1937 show a marked increase in comparison with exports during the corresponding period of the previous year. The details of this trade are set out in the tables which follow:—

Oranges (to September 30).

Destinations.	N.S.W.	Vic.	S.A.	W.A.	Total Cases.
United Kingdom	5,321	724	27,479	1	33,525
Canada	20,890	—	1	—	20,891
New Zealand	2,401	6	156,726	—	159,133
Eastern	16,111	1,928	729	2,694	21,462
Other	1,936	986	76	40	3,038
1937 Total	46,659	3,644	185,011	2,735	238,049
1936 Total	32,446	1,492	142,686	1,086	177,715

Lemons (to September 30).

Destinations.	N.S.W.	Vic.	S.A.	W.A.	Total Cases.
United Kingdom	1,558	4	1,404	1	2,967
Canada	8,245	—	—	—	8,245
Eastern	751	315	151	110	1,327
Other	1	248	15	—	264
1937 Total	10,555	567	1,570	111	12,803
1936 Total	7,152	576	163	225	8,116

In comparison with 1936, it will be observed that increases have occurred in respect of each of the exporting States, shipments from New South Wales increasing by 14,213 cases, from South Australia by 42,325 cases, and from all States by 60,334 cases.

There has been, however, a decline in the exports to the United Kingdom this season to the extent of 10,755 cases, representing a drop of 17,330 cases from New South Wales, partially offset by additional exports of 6,135 cases from South Australia.

Prior to 1936, only small exports of citrus fruits had been made to Canada, but in that year an appreciable increase took place. This trend has been more than maintained during the present season, shipments having increased five-fold from 3,617 cases to 20,891 cases.

In view of the restrictions operating against the importation of Australian fresh fruit into New Zealand, exports are only made to the Dominion in accordance with the quantities permitted and conditions imposed by the New Zealand Government. Early this year a small quantity of fruit was shipped from New South Wales, but since the commencement of the new season's crop, exports have only been permitted from South Australia, and are at present restricted to 180,000 cases up to the end of November.

The new Zealand Government has decided that during the period, December 1 to April 30 next, citrus fruits may be imported into the Dominion from South Australia, Victoria and certain defined areas in New South Wales.

The Straits Settlements, Netherlands East Indies and other eastern destinations have so far absorbed 21,462 cases this season as compared with 7,912 cases in 1936, an increase of 13,550 cases.

Although the quantity of Lemons exported is comparatively small, it is interesting to note that shipments for the first nine months of the present year exceed those for a similar period of 1936 by 4,687 cases.

Whilst there has been a decline in shipments to the United Kingdom to the extent of 1,849 cases, the improved Orange trade with Canada, which has already been noted, is reflected in the rise in Lemon exports to the Dominion from 2,046 cases in 1936, to 8,245 cases in 1937.

CITRUS AT RENMARK SHOW.

Very Fine Section.

As celebrating the Jubilee Show at Renmark, South Australia, both entries and attendance created a record. In the Citrus section the judges, Messrs. F. R. Arndt (District Horticultural Adviser), and F. H. Metters stated that it was a very fine display, easily the best seen for some years. The winning exhibit contained 19 varieties of high-class fruit. The packed fruit was also excellent.

The Awards:

Collection of Citrus Fruit: C. H. Katekar 1, E. R. Strachan 2, C. E. Hockney 3. **Washington Navels** (trophy by Mr. W. Dridan), C. E. Hockney, C. H. Katekar. **Blood Oranges:** B. C. Niehus 1 and 2. **Mediterranean Sweets:** C. H. Katekar, B. C. Niehus. **Valencia Lates:** C. H. Katekar, C. E. Hockney. **Riverlencia Oranges** (Quinn's Early Lord Howe): H. R. Haselgrove, B. C. Niehus. **Any other Seeded Oranges:** C. E. Hockney, C. H. Katekar. **Mandarins,** R. Fisher, B. C. Niehus. **Lemons, Freshly Picked:** W. G. Stoeckel, E. L. Vorwerk. **Grapefruit:** C. H. Katekar, R. Fisher. **Packed Case of Oranges for Australian Markets, Wrapped:** Wood Son Seary 1 and 2. **Packed Case Oranges for Export:** Wood Son Seary 1 and 2. **Display of Citrus Fruits:** Wood Son Seary Ltd., Renmark Fruit Growers' Co-op.

Italy: Citron candying in Italy was depressed by competition, the result of America buying Italian brined citron and processing it in U.S.A., cutting out imports from Italy of the finished product. Italy, however, retained the market in northern Europe. Lemon shipments in 1936-37 season were down in volume, but up in price. Crop prospects for Lemons are extremely bright. Stocks of Oranges (at end of May) were very large and difficulty was experienced in ridding them.

FIRST THOUGHT.

Victim: What has happened? where am I?

Doctor: Easy, easy. You were hit by an auto. You'll recover.

Victim: How much?—"Kansas City Star."

New South Wales News and Notes

Griffith, Leeton and Murrumbidgee Areas

Reviews of Orchards

(By Our Travelling Representative.)

Griffith.

IN last issue, our representative reviewed visits to several orchards in this district and gave a personal comment upon methods of cultivation and fruit culture seen. He follows on with:—

Mr. J. C. Thorne is a director of the Griffith Producers, and is also the proprietor of Estate 904. He is particularly keen, and consequently is successful in fruit growing.

The citrus portion of this orchard is supplied with the overhead irrigation scheme (described previously). The rest of the orchard is watered by the furrows and flooding principle. If these trees get any larger, some will have to be removed as the growth is tremendous.

Mr. J. F. Turnell, of Farm 908, is one of the earliest of the growers here. The 28 acres are chiefly planted to citrus, vines, Prunes and canning stuff. Here again is a fine growing family of boys and girls.

Mr. C. J. Wells recently purchased the property north of J. F. Turnell, where wines, Peaches and President Plums have tried to excel each other in growth. Amongst the trees a nice swarth of clover is showing, resulting from the application of ten tons per acre of sheep manure, throughout the orchard. Trees have benefited from the application of sheep manure for the past three years.

Mrs. Theeuff, who lost her husband some time ago, has carried on successfully on her orchard, keeping the trees "up to par" and the place in order. A variety of fruits are grown.

Mr. F. A. Crawford (Farm 658, Griffith) has a compact, well cultured, orchard of citrus, Sultanas, Prunes and Apricots. Like many other growers of this district, the horse lorry with ladder is requisitioned in reaching for pruning, driving around the trees for the high work, this also keeps the workman off the cold wet ground.

Heavy leguminous crops, sown with manures also also in evidence.

Mr. F. W. McFadzean, of Farm 1433, in addition to being a keen orchardist with a fine growing family, is extending his poultry houses, cementing the floors, making for cleanliness and comfort, these new buildings of iron will be quite snug.

Mrs. McFadzean takes charge of this department. White Leghorns, Australorps and Brown Leghorns are seen: the last are the favorites, and include some fine specimens.

Mrs. Mac regularly supplies the chief guest houses of Griffith, throughout the year with new laid eggs—an example in egg production which could be copied with advantage by her neighbors.

Mr. T. F. McDonald's block of 15 acres, is on a nice rise above the water levels, with a channel running past his property. The water is pumped to elevated tanks and is an admirable place for a poultry or pig farm, naturally drained, with plenty of stone on hand for concreting. This district is generally short of stone.

Mr. R. Whiteside has greatly improved his orchard of mixed fruits since he came into possession a few years ago, he is opposite to McFadzean's and intends to emulate their example by increasing his poultry and egg supplies.

Mr. C. J. Baggs irrigates his 27 acres in three days by the overhead system (described previously on Mr. Beverley's). A centrifugal pump, driven by eight horse-powered electric motor, delivers an equivalent to 2 inches of rain, over the area in 72 hours, the time allotted for the job. Under this plan a perfectly even distribution is assured, which is difficult by flooding. Better results are easily observed here. The proprietor is keen on cover crops of legumes, ½ cwt. of each super and sulphate of ammonia, alternated with 10 tons per acre of sheep manure.

Chiefly citrus and wine Grapes are the products of the estate. Two acres of Granny Smiths are exported, and the last lot netted 7/6 per bushel to the grower. The Cornichons are sent to Sydney markets, a special label showing a bunch of the contents is the design. This brand always tops the market, and demonstrates that an attractive distinctive label pays.

Rice Growing at Griffith, N.S.W.

Mr. T. B. Oakes, a director of the Griffith Producers' Co-op. Coy., whose properties are opposite to Mr. Baggs, about 1½ miles from the town, cultivates 47 acres of fruit trees. Some enormous Apricot and Peach trees, full of new wood, have just been pruned, and a forest of sticks have to be cleaned up. These properties, close to the town, have a permanent added value, the haulage of produce being comparatively light on the better roads.

Farm No. 111, of 24 acres, conveniently situated between Hanwood and Griffith, is the property of **Mr. Borgnolo,** and is famed for its Prunes. Last season's drying averaged 30 to the lb. Vines, citrus, Apricots and Peaches are successfully grown. Cover crops and heavy manuring are in evidence.

Mr. Hall, Junr., pruning Apricots on his father's farm, No. 985, from the platform of a lorry, was using long double-handed secateurs and saws, and was dealing drastically with the tremendous growth on these "Trevats." The Apricots hereabouts could be planted 40 x 40 and still fill the spaces. Evidently soil and climate are ideal. On this 30 acre property vines, citrus and Prunes are grown; stone fruits and vines are "in excelsis" in Griffith.

Mr. F. B. Stafford says he has a "fruit salad" orchard of 26 acres.

Prunes are his favorite, but the other varieties, viz., Elbertas, Trevats, Lisbons, and Washington Navels, show the result of legumes being turned under.

Mr. C. H. Perkins, on his 26 acres, chiefly citrus, two miles out of Griffith, on the bitumen road to the south has proved to the observant folk that he is a master in the culture of Oranges. Heavy cover crops well turned under, alternating with sheep manure at 30/- per ton, from Tullamore, N.S.W., and super. He states that the sheep manure from Tullamore is of high grade and is cheaper at 30/- a ton than some other stuff at a smaller price per ton.

Leeton.

"Merungle Hill" and "Corbie Hill" lie north of Yanco and about five miles easterly of Leeton, N.S.W., and adjacent to the main canal, but considerably above water level. Here the water is pumped to a distributing base, some 70 ft. up, and thence per concrete channels, by gravitation, to the orchards. In several instances the planter does some further pumping to reach his still higher lands.

The Water Commission's charge is 27/- per acre ft., a much higher cost than elsewhere in the M.I.A., owing to these altitudes, seepage and frosts are less prevalent. The products of these properties are chiefly citrus, deciduous canning and Sultanas. Most of these successful planters are ex A.I.F. men with growing families.

The revenue is more regular than from the lower lands. Most of the present holdings are round about 50 acres each, being entirely devoted to fruit culture. The systems of working are practically universal. Heavy manuring with cover crops, scientific pruning, spraying, cultivation and water control. At time of writing, Apricots and Peaches were in pink stage, spray outfits were at work everywhere, distributing "Bordeaux" and "lime sulphur," for control of fungus and curl leaf. Peaches and Apricots were showing for good crops, Almonds appeared to be setting well. Pruning, with the exception of vines, was finished, and plough teams of horses and tractors were to be seen all over the area. The harvesting of W.N. Oranges was nearing completion, then Valencias will be garnered in, of which there is a medium crop.

There are two main roads passing through Merungle Hill and Corbie Hill, northwards from Yanco, terminating near Stringer's Bridge, Corbie Hill road. On both sides orchards and citrus groves are to be seen. Right near the bridge, on the near road is a property that catches the eye, "Warrawong," No. 1208, the estate of **Mr. N. W. Hamilton.** At time of writing, Navel Oranges were being packed at the home shed, for market. The fruit is the result of perfection in citrus culture. Adjoining on the south is Mr. Barrett's, another beautiful grove.

J. S. Aylett, Whitton, has an 80 acre orchard, 12 miles west of Leeton, on the road to Griffith, this is quite an isolated fruit farm—there being no more fruit, until Yoogali is reached, on that side, 20 miles distant.

The property is nearly all Granny Smith Apples, and is a well-kept place. Mr. Aylett has his own, well equipped packing house, a distinctive own label is used—**The Granjay.**

Mr. Aylett has a fruit business in Wagga, N.S.W., and was not at home when writer called.

The Leeton Packing Coy., with its handling plant and staff at Griffith, N.S.W., alongside the Griffith Producers, is managed by Mr. E. Johns.

All kinds of fruits and nuts (except Prunes, which are handled in Sydney) are processed, packed, graded and forwarded to the company's head depot in Sydney, for distribution at home and abroad.

Mr. H. Attwood, of the Leeton F.D. and Packing Co., has charge of the Leeton end of the business. Contracting with growers for their fruit, which is forwarded to Griffith for processing.

The "Attwood" establishment is a hive of industry, and employs a large staff of expert handlers, personally supervised by Mr. Attwood and his sons, who have had many years' experience in the packing and marketing of all kinds of fruit for all markets. Recently consignments of Ohanez Grapes, packed by these folk, after being stored by them for six weeks and sent to the East, opened up in 100 per cent. perfect condition. Advice is given to growers and pickers re the handling of Grapes. One point to be remembered is to place the stems all one way so that packers can handle without touching the berries, also to only half-fill the picking boxes.

In addition, a big country trade has been permanently established, by direct business with retailers throughout the States.

Harvesting and Marketing in the Murrumbidgee Irrigation Area.

There is no other fruitgrowing district in Australia, where harvesting activities extend over a longer period. As a matter of fact it lasts the whole year round.

Commencing with Cherries they follow with Strawberries, Plums, Apricots, Peaches, Pears, Apples, Quinces, Prunes and Grapes (drying, table and wine). Tomatoes from November until frosts finish them; citrus, April to December; Lemons nearly always.

A large number of packing houses: Co-operative, privately owned, and home concerns, cater for the processing and marketing of all products, thus the grower is relieved of this part of the business, and can concentrate on production, and incidentally can work much larger areas to his own advantage. Probably nowhere else in our country is the co-operation of growers more fully carried out, as exampled by the Leeton cool store and cannery, and its affiliated societies.

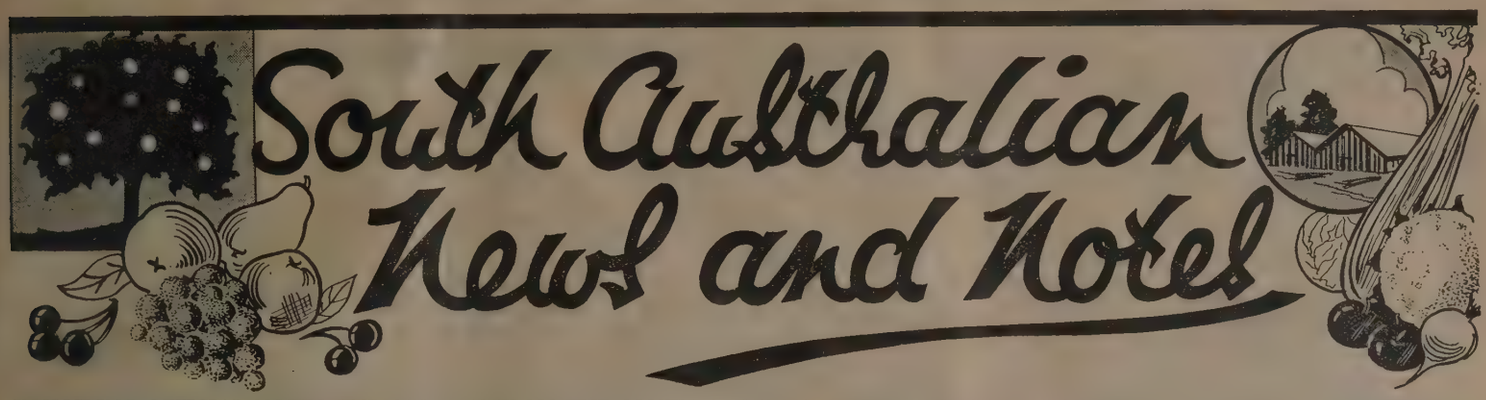
The prosperity of the towns (Leeton and Griffith in particular), testify to this. Then again, there are the products of other areas. Cream is delivered to the factories daily. Stock is marketed weekly. Wheat carting starts in December and continues, and then Rice during May and June with shearing in August followed by the carting. No wonder the machinery and oil companies and chain stores are well represented.

This district **under irrigation,** does produce everything mankind needs. Again "hats off" to the memory of the pioneers of this M.I. scheme.

NOW'S the time to
Spray with
SHELL WHITESPRAY
for perfect control of SCALE
SHELL
WHITE SPRAY
OIL
Spray thoroughly. Every insect missed is a potential source of future expense, loss of value of your crop, and the reinfestation of your orchard. Use not less than 8 gallons of 1:40 diluted spray per average sized citrus tree.
SHELL WHITESPRAY gives perfect control of all types of scale on citrus and other fruit trees. Possessing unrivalled ovicidal properties, it is invaluable for controlling egg-laying insects—Codlin Moth, Aphis, Spider, etc.
SHELL WHITESPRAY emulsifies readily with either soft or hard water. Spreads freely, completely covering all parts of the tree.
SO.18
PRODUCT OF THE SHELL COMPANY OF AUSTRALIA LTD.

CENTRAL HEATING

Finding that his orchard contained an artesian supply of water that averaged a temperature of 85 degrees all the year round, Mr. O. C. McDavid, of Gulfort, Missouri, harnessed it by piping the orchard and automatically spraying his fruit trees during the frosty weather. When not needed as a hot-water spray, the water is turned into a dam alongside the well. He claims that the warm water does no damage to the trees, but is definitely a preventer of frost damage.



INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

The South Australian Fruitgrowers' & Market Gardeners' Association

Minutes of Executive Meeting, Held October 29, 1937.

Present.—Mr. W. J. Bishop (in chair), Messrs. J. G. Potts, C. Ridley, H. J. Walker, A. J. Hollister, H. B. Robson, H. N. Wicks, F. A. Wicks, G. J. Strange, G. H. Schultz, W. H. Ind, A. C. Gibson, J. Turner, N. T. Hobbs, G. T. Pitt, A. Elliott, F. Hughes, F. C. Staniford, L. J. Wicks, G. Jennings, A. O. Petersen and Secretary.

Minutes as sent out taken as read and confirmed.

Correspondence.—(1) Committee of Direction, Queensland, received, (2) S. Arthur, Bulls Creek, (3) Dept. of Agriculture showing fruit held in cold storage, (4) F. G. Roberts & Sons re Health Food Display Day, (5) Postal Department, re Postal Box No., (6) J. W. S. Mitchell, Mile End, (7) Fred G. Koerner & Co. Ltd. and (8) Central Board of Health, re paint for inside of Raspberry tins; (9) Dept. of Commerce, re non-issue of Monthly Trade Bulletin, (10) Dept. of Agriculture, re Trade Publicity Material used in United Kingdom.

Moved Mr. G. H. Schultz, seconded Mr. H. B. Robson that correspondence be received and dealt with. Carried.

Resignations.—Moved Mr. Robson, seconded Mr. Jennings, "that the resignation of Mr. J. W. S. Mitchell be received." Carried.

Moved Mr. Peterson, seconded Mr. Robson, "That Mr. S. Arthur's resignation be received." Carried.

Mr. Hobbs moved, supported by Mr. G. Strange, "That letter from Central Board of Health be published in 'Fruit World.'" Carried.

Moved Mr. N. T. Hobbs, seconded Mr. G. Jennings, "That letter from C.O.D. be passed on to Exporting Sections." Carried.

Educational Meeting.—Mr. H. N. Wicks, Vice-President of the Association, kindly consented to lecture at the next Educational Meeting.

Mr. Hobbs moved, supported by Mr. Elliott, "That the next Educational Meeting be held on Wednesday, November 24, at 8 p.m." Carried.

Reports From Sections.

Tomatoes. — Mr. J. G. Potts reported on Tomato Section. He stated supplies were limited, but generally speaking prices a little better than last year. Leaf mould was prevalent, and there was no indication of a heavy crop.

Celery.—Mr. Strange reported that Celery season had finished, and although export was lower than last year, Celery growers had had a good season.

Soft Fruit.—Mr. F. Hughes reported that the general meeting of the Section would be held on November 17.

Citrus.—Mr. N. T. Hobbs reported that the season had finished.

Cherry.—Mr. W. J. Bishop reported that the annual meeting of the Section would be held at Ashton on Monday, November 1, at 8 p.m.

Selling of Containers with Fruit.—Mr. L. J. Wicks reported on the Sub-Committee's work in this direction, and advised that no finality had yet been reached. Mr. A. C. Gibson, Secretary of the Marion Branch, reported that his Branch had passed a resolution that cases be returned as before.

Mr. J. Turner moved, supported by Mr. G. H. Schultz, that this matter be on the agenda for the November meeting. Carried.

Finance.—Financial statement submitted and accounts passed for payment.

Lease of Premises.—Lease submitted, and resolved that same be signed.

PAINT FOR RASPBERRY TINS.

The Secretary,
S.A. Fruitgrowers' and Market Gardeners' Association, Adelaide.

Dear Sir,

With reference to your letter of the 28th ult., regarding a suitable paint for use inside of tins containing Raspberries, I am instructed to inform you that a paint with red oxide of iron or aniline base would be suitable for the purpose.—Yours faithfully,
Central Board of Health,
Victoria Place, Adelaide.
October 4, 1937.

S.A. FRUITGROWERS' AND MARKET GARDENERS' ASSOCIATION.

Adjourned General Meeting.

THE adjourned general meeting of September 24 was held again on Friday, October 29, at the conclusion of the Executive meeting.

Mr. W. J. Bishop (President) presided, and stated that the meeting was adjourned on September 24 to enable Sections to consider the Revision of Rules. The Rules Sub-Committee met on Friday, November 22, at 7.30 p.m., and recommended the following alterations to the previous recommendations of the Committee.

Clause 9.—"and such life members as the annual meeting may appoint from time to time" be added to end of clause.

Clause 19.—"or as an Executive Committee man" be substituted for "or as a Committeeman."

Clause 23.—"The Accidental omission to give notice of any meeting to, or—" be deleted from clause.

Clause 36.—"Not later than the 31st Day of August of each year" be deleted from clause.

Clause 46.—"Section" be substituted for "Branch."

Clause 52.—The whole of clause 52 be deleted and the following substituted:—"Should the overhead expenses of the Association exceed the members' subscriptions, a sub-committee of three from each section then confer with a sub-committee of three from the Executive to decide what amount each section should pay to meet any such deficiency."

Clause 53.—"The Section may charge a handling fee to members whose subscriptions are in arrears, but shall not—" be placed at the beginning of the clause.

Moved by Mr. L. J. Wicks, seconded Mr. G. J. Strange, that "The revised Rules as recommended by the Rules Sub-Committee be adopted by the Association." Carried.

Resolved that 1,000 copies be printed and distributed among members.

Notice of Meeting

S.A. Fruitgrowers' and Market Gardeners' Association

Soft Fruit Section.

The annual general meeting of the above Section will be held in the Association Board Room on Wednesday, November 17, at 8 p.m.

It is requested that all members of the Section will be present as matters of importance will be discussed.

Business.

Election of Officers.

General Discussion on Crop Prospects.

Any other business.

Please Note the Date—Wednesday, November 17, 1937.

Marion Branch

All members of the Branch are particularly requested to attend the December meeting which will take the form of a

Xmas Social Evening,
and the date, 1st Wednesday of the month,
December 1, 1937.

Please come along and make the evening a successful one, and at the same time spend a most enjoyable evening.

A. C. GIBSON,
Secretary, Marion Branch.

Educational Meeting

The Educational meetings held quarterly this year have proved a most successful innovation, and have been of a most instructive nature indeed. The attendances, however, have not been as large as would be expected, and all members are requested to attend the next meeting set down for Wednesday, November 24, 1937, at 8 p.m.

The speaker on this occasion will be

H. N. WICKS, ESQ.,
Vice-President of the Assn.

Make a note of the date—Wednesday, November 24, at 8 p.m.

Colloidal Sulphur

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HOWARD'S COLLOIDAL SULPHUR

is better and cheaper than competitive brands. Pamphlets, prices and details of free test offer from the manufacturers:—

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WOOD WOOL
Finest Grade for Export Fruit.
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and Fruit Containers.
Prices and Particulars on Application to
AUSTRALIAN BERRY BASKETS CO.
175 Kent Street, Richmond, Vic.
Tel. J1253.

Power Alcohol from Waste Fruit

[We have received the following letter from a S.A. reader, who states that the late Mr. W. J. Kimber, two days before he passed away, asked him to write this article, following a talk that they had upon the subject.—Ed.]

(To the Editor.)

Sir,

Fruitgrowers should do all in their power to force the Government to bring about the manufacture of "power alcohol" from waste fruit. All that is needed is to do away with all existing excise duties, and allow the manufactured stuff to be sold as a motor spirit free of all taxes. Think of the hundreds of thousands of cases of fruit that go to waste in Australia in one year, because of Codlin Moth, Bitter Pit, Black Spot, windfalls, and some being too small, and even semi-rotten ones; all this stuff could be gathered up and sent in unlimited quantities for the manufacture of power alcohol.

Next year should be a big crop, and with more opposition in open markets in the world it looks as though we will be lucky if we get 2/- to 2/6 per case profit for good stuff. For over 50 years Government Inspectors have been saying, "Thou shalt not sell Codlin Moth Apples, small ones, others with Black Spot or Bitter Pit, or, needless to say, windfalls."

Up to a point this is right, for it would tend to raise the price of the better class stuff, but why should we leave the Codlin Moth and diseased fruit under the trees to breed for the next season, and then for them to come along next year, and say you must do more spraying, etc? How monstrous all this is, when this waste fruit could be put to a wonderful use.

Think a little more! For over 50 years we have been trying to get rid of the Codlin Moth, and all other diseases, and what is the result? Certainly nothing to blow about. Why do not inspectors advocate the manufacture of all this waste fruit, and thereby help to destroy all these pests, if they are our friends? If we keep on spraying for 500 years we will do no great good when we leave them in the garden to breed. It is impossible to get a 100 per cent. perfect fruit.

The Government can find tremendous sums of money to find oil, but supposing we do find oil, what will an oil mine employ as compared with what could be employed by making alcohol from waste fruits, and scores of other products such as wheat, sorgham, sugar beet, maize, straw, sawdust, Potatoes, etc.? This would solve the unemployed problem, by keeping men on the land who could afford to employ all the year round, as the market would be **unlimited.**

What we want in Australia is to keep the people on the land, and open up more land, so people can get a job. Power alcohol is the only thing that can do this. Think of the millions of pounds that go to America every year for motor spirit, while we leave to "rot" on the ground the very article required to make such stuff. Why, brother fruitgrowers, the Americans are laughing at us. Where would we be in time of war if the supply of petrol was stopped? A M.P. pleads with you for your vote until his throat is so dry that he nearly coughs dust; well, you do the same thing back and see that he keeps his promise. This referendum was held to help the man on the land (so politicians tell us); now let them prove that statement to be correct, and it would not cost them or us £100,000.

If the Government are anxious to help us let them give the manufacturer of power alcohol 3d. bounty on every case of fruit he buys. The thousands of pounds spent in salaries to inspectors could go to the growers by giving it to the manufacturer of power alcohol. Wake up, you Aussie fruitgrowers, and show the politicians what you are made of. Talk power alcohol morning, noon and night. Wherever you go, educate your fellow man to this wonderful wealth the Lord has given us. Remember the Codlin Moth and other diseases are sent for a purpose. Honor the Lord by not wasting such wealth, for "waste not want not." Explain the matter to your local preacher, tell the Salvation Army about it, bring it up at your next fruitgrowers' meeting. remind the returned soldiers on the land about it, and finally, remember that the Government is no stronger than the loyalty of its supporters. I ask one question, "What would the price of Grapes be if it was not for the distilleries? And don't forget this. It cannot be used for drinking purposes, as it is "denatured."

Alcohol has many advantages over petrol. With alcohol the power can be increased 30 per cent., the reason for this higher efficiency is that with alcohol the compression in the cylinder may be safely increased to from 180 to 200 lbs. per square inch, where, as with petrol, the compression cannot be carried much beyond 80 to 90 lbs. per square inch, owing to the risk of pre-ignition, known as knocking. Water will not mix with petrol, but it will with alcohol. An engine lasts much longer driven on alcohol.

Many things can be said in favor of alcohol against petrol, but space will not permit. According to the Department of Chemistry Bulletin No. 8, on power alcohol, Dr. W. A. Hargreaves, M.A., D.S., B.C.E., F.I.C., being the director, states on page 10: "As regards the cost of alcohol, a large manufacturer recently stated (1915) in England that he could produce pure alcohol at 6d. per gallon if the restrictions of the revenue authorities were reduced." He further states, "According to official statements in certain British Colonies, raw materials for the manufacture of alcohol can be produced in practically limitless quantities at a price equivalent to 3d. per gallon for 95 per cent. alcohol.

I now ask every fruitgrower to read this article carefully and to do all in his power to advocate the manufacture of power alcohol from waste fruit. I plead with my fellow fruitgrowers never to listen to our "So called friends" (Government inspectors, etc.), at a lecture on fruit culture of any kind until they give you a 15 minute speech on power alcohol from waste fruit, remembering it would raise the price of fruit 1/6 to 2/- per case, and need 50 per cent. less spraying.

Finally I advocate that £100 be given as a prize by the fruitgrowers of Australia to the person who composes the best song on power alcohol written in Fox Trot time, so that it can be sung and danced to throughout Australia. This would be the greatest advertisement that man could devise. If you do this, then success is assured, as all things are possible with the help of God.—Yours, etc.,

"DONE MY BIT."

Adelaide, 12/10/37.

S.A. Fruit Marketing Association

Monthly Executive Meeting

THE usual monthly meeting of the Executive Committee of the South Australian Fruit Marketing Association was held on October 1. The President, Mr. H. J. Bishop, presided over an attendance of members including:—Messrs. M. G. Basey, F. F. Redden, F. B. James, J. B. Randell, A. G. Strickland, A. O. Petersen, R. G. Hannaford, H. N. Wicks, M. Vickers, S. M. James, P. R. B. Searcy, A. R. Willsmore, R. S. McDougall, and the Secretary.

After the minutes of the meeting of August 27 had been confirmed and signed, the following business was transacted:

Correspondence: Letter from Government Produce Department dated September 22, enclosing extract from Trade Commissioner's report re U.S.A. publicity.

Letters from Australian Apple and Pear Export Council, re deputation to the Prime Minister and Minister for Commerce in Canberra, asking that the amount of £50,000 already placed on the estimates be increased to allow for payment of 4½d. per case, the same as last year, and that any payment should be on a per case basis. Also advising that if Mr. Pryce would attend the Sydney Conference, arrangements would be made for him to demonstrate his "slat button" invention to enable three-piece timber to be used for the sides of Apple cases.

Re export of Apples and Pears to the U.K., and asking for information re Forward Sales as compared with other methods,

Copy of letter from MacDonald Hamilton & Co., re increased refrigerated space available next season in the direct service from Australia to Ceylon via Bengal ports.

Acknowledging receipt of £150 contribution to Publicity Fund.

Copy of letter from Department of Commerce with statement showing increase in export of Apples to India and Ceylon during 1937 as compared with 1936.

Apple Advertising Campaign: Secretary advised that a number of letters had been received from public schools expressing appreciation of the Apples, recipe booklets, etc., that had been forwarded.

Apple Packing Classes: The President stated that he thought something might be done under the Government Vocational Training Scheme for the establishment of Apple packing classes to assist in absorbing some of the young unemployed. Members approved of the suggestion.

Apple and Pear Council Conference: Members reported that difficulty had been experienced last year in regard to fruit shipped to the Continent through the United Kingdom. It was agreed to put on the agenda for the forthcoming Conference the resolution: "That steps be taken through the Department of Commerce to define the necessary authority for issuing the requisite certificates to ensure that fruit shipped through the United Kingdom to the Continent shall not be regarded as part of the United Kingdom quota."

Fruit Forecast: The President advised that the Shipping Committee had agreed to the following as a forecast for the coming season:—

	United Kingdom.	Continent.
February	20,000	20,000
March	300,000	100,000
April	170,000	80,000
May	50,000	—
Total . .	540,000	200,000

These figures to be advised to the O.S.R.A. by the chairman.

Messrs. H. J. Bishop and J. B. Randell were unanimously appointed as delegates to the forthcoming Conference.

Next Monthly Meeting and Annual General Meeting: As the delegates would not be back in Adelaide in time for the usual meeting day on October 29, it was agreed to postpone the monthly meeting until Friday, November 12, at 1.30 p.m., to be held at Adelaide, and it was further agreed that the annual general meeting of members should be held on the same day and place and commencing at 2.30 p.m.

Research Sub-Committee: Mr. J. B. Randell reported that the matters considered at the meeting of the Research Sub-Committee were the question of selling cases with the fruit and a resolution had been passed to the effect that members approved of the system that had been in operation in the past.

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MONOHYDRATED COPPER SULPHATE for Celery, Tomato and Potato Blight.

BORDEAUX POWDER for Spraying. Save the bother of mixing Bordeaux Mixture.

COPPER CARBONATE for Dusting and Pickling Seeds and Wheat.

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South Australia

Mid-Murray Notes

Vines Survey — Green Manuring — Renmark Annual Meeting — Bait Traps — Black Spot — Research Work Illustrated — Irrigation Action — Reconstruction of Vines — Drainage Construction.

As was indicated in last month's notes, the vines have all shown a good percentage of bunches, and on the present showing the position is very satisfactory for Sultanas, Currants and Gordos, while Doradillos, having borne a heavy crop last year, are showing just an average crop. Every year, when the buds have burst sufficiently to show the number of bunches, the writer makes a rough survey of individual blocks, taking into consideration the cultural methods adopted by the blocker concerned, the size of the crop previously harvested, and the relationship to the crop showing for the current year.

The results of observations carried out for the past few years clearly reflects that the man who allows his vines to suffer a temporary water shortage, or neglects to carry out a green manure programme, and stints his vines of nitrates, invariably suffers a lean year after a good crop. The reason for this is not hard to find when we consider the function of the vine. If it is starved of plant foods such as nitrates and organic matter and phosphates, its strength is taxed to the utmost in maturing the crop on the vine and has not sufficient reserves to mature next year's fruiting buds.

In the days before green manuring became a general practice, and before ditching and burying of cuttings, accompanied by the planting of tares or beans in the ditched rows, became general, alternate cropping was looked upon as inevitable and a natural reaction after a heavy crop. Now, however, the growers who adopt modern methods and do not stint the artificial fertilisers, produce crops more regularly, and the only reaction to light cropping takes place when cloudy weather conditions, late in the season, prevent the full maturation of fruiting buds. As this is beyond human control, it must be taken as periodically inevitable.

Renmark's Annual Meeting.

The annual meeting of the Renmark Pear Growers' Association took place on October 13. The election of officers resulted in Mr. F. H. Basey being chosen as President. Committee consists of Messrs. J. Price, F. Hooper and R. V. Kemp, with O. Weste (Secretary). It was resolved that a voluntary levy of 1d. per tree be made again this year to supplement the Government assistance in making the services of an inspector available for the enforcement of spraying regulations to combat the codlin moth pest. This levy is found to be just sufficient to meet the yearly current expenditure. The Secretary read a review of the year's transactions, and reported that most of the trees planted on border fences, which were previously left unsprayed, have been either grubbed out or have been adequately sprayed.

Pear growers expressed at the meeting their satisfaction of the improved conditions since the inspection commenced two years ago. Since the spraying regulations have been enforced, a record has also been kept of the movements of moths by placing molasses jars in trees. A 10 per cent. solution of molasses is used in the bait traps, and owing to the large number of cut-worm moths being attracted by this solution, it was also found necessary to place wire netting over the pots of a gauge small enough to exclude cut-worm moths, but large enough to admit codlin moths.

Last year cut worm moths were particularly plentiful, and as many as six per night were caught in a single trap before netting was placed over the jar. In the season 1935-36, three definite flights of codlin moths were observed. In the year 1936-37, only two peak periods showed up. One at the end of October and the other at the end of January. It was also found that weather conditions seem to influence the time of moth emergence. Molasses jars were not put out until after the two calyx sprays had been given, as it was thought that these two sprayings have been so definitely recommended by research workers that they are indispensable. This is borne out in the light of observations in this district also. Wherever a grower missed the calyx sprays, infestation of grubs assumed high proportions. The first spray this year was applied from October 5 to about October 11, according to the state of blossom.

In one part of the Settlement, blossom had all fallen by October 5, and in another it hung on until the 11th. Flowering was very uniform this year, and all fell in a few days; this is usually followed by a good setting.

Although during the two years when moth flights have been under observation have shown three and two definite peaks of emergence respectively, there are long periods of intermittant stragglers being on the move, thus indicating that it is necessary to keep the Pear covered with spray solution during its growth as these stragglers are capable of infecting quite a number of fruits.

Sulphuring Commenced.

During the week from October 9 to 15, we had nearly two inches of rain, and as this was followed by clear sunshine, weed growth moved rapidly, and is now being dealt with with great rapidity. As a rain at this time of the year is liable to bring about black spot and oidium, growers have been sulphating as a prevention of oidium, and living on optimism, chiefly to let black spot take care of itself. So far there is no appearance of black spot, and as the time of incubation has passed, it is to be hoped that it will not appear, but this will be governed by continued fine weather. Very few growers have taken the precautionary measures to spray with Bordeaux mixture either in early or late Spring. "Trust to luck" is the maxim of the day.

Research Work.

Mr. A. V. Lyon, M.Ag.Sc., C.S.I.R. Officer in charge of the Merbein Research Station, has had a busy week in these areas of South Australia, addressing meetings of growers and showing lantern slides of various phases of research work carried out at the laboratories. These meetings were made with the sanction of our State Department of Agriculture and commenced at Waikerie on Monday, October 18, Berri on October 19, and Renmark on October 20. The meetings were organised through the branches of the Agricultural Bureau, and each meeting was particularly well attended. Lantern slides showing graphs of water penetration at given times of application were very enlightening, showing typical fluctuations at given points, the rapid rise following irrigations or heavy rain zig zagged across the graph.

Portion of Deakin Avenue, Mildura, Vic., showing the W. B. Chaffey Monument.

Irrigation Explained.

A vertical scale map showed that free water is not always associated with the lowest point of a block, but will sometimes be perched half way down a slope. Such a case occurred in the Berri area, and shows the importance of the use of a soil auger in defining the danger point. As free water is the obvious condition of an irrigation settlement, Mr. Lyon indicated that, with injudicious application of irrigation water, drainage was inevitable, and that all along the River, growers were becoming drainage "conscious." Percolation profiles were shown on slides covering soakage rates of 1-2-3 and up to 9 hours on soils typifying Red Cliffs sand, Mildura calcareous sand, Merbein sandy clay, clay loams and Tatchera sandy loam. In some instances percolation became rapid on the surface and slowed down according to the permeability of the sub-soil, while other soils showed a slow surface penetration and a more lateral penetration, when a loose sub-soil was encountered. Free soil water in proximity to unlined channels showed an undue accmumlation of salts in the soil.

Mr. Lyon showed slides depicting salt movements in soils due to the application of irrigation water. The general distribution of salts on Mallee soils were seen to move downward with water movements, but immediately free water became established, these salts were again brought to the surface with disastrous results to plant life. The study of irrigation was first begun at the Merbeim Research Station in 1926, and the conclusions arrived at, through the results of experiments, have been responsible for changing the methods in recent years. The percentage of moisture in the soil, Mr. Lyon pointed out, during harvest time, say from mid-February to the end of March, was relatively small on blocks which have received the last irrigation in mid-January. For this reason he advocated a pre-harvest light irrigation in February for growers who are placed early on the roster. Mr. Lyon threw a graph on the screen showing the relationship between growth rates and fruit maturity.

The potential crop is indicated clearly by the vigor of the growth, and the growth rate is rapid in early Spring, and until the fruit forms, after which a rapid slowing off is manifest when the berry is almost fully grown. Baumé commences and continues to maturity, these three

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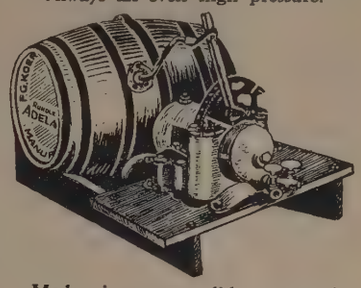

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functions follow one another in gradual sequence.

Bud Formation.

On the matter of bud formation, the speaker showed slides enlarged from a microphotograph of a cross section of a Sultana bud, in which the bud is clearly visible. In November, the first fruitful bud is formed, and further development takes place progressively, along the cane: yet the bunch which is formed within the bud in November, 1937, will not be harvested until February or March, 1939. From this it will be clearly seen that a farsighted manurial policy has to be adopted. Mr. Lyon outlined the results of experiments carried out for the improvement in quality of the fruit by disbudding Currants. It is possible to produce a big bold dark fruit by disbudding in the Spring, all weak shoots coming away from old wood, and base buds, leaving only that growing from spurs, but it has a drawback in that the fruit has not stood up to the heavy rains experienced in the past few years, as well as the "scrubby" fruit.

During the past five years, a period over which these experiments have been made, we have had three years of exceptionally heavy monsoonal rains in January and February. One year it was 5 inches, another 3½, and another 2 inches. Whereas from statisical evidence, only two years in the previous seventeen have shown anything comparable; so, with the return of normal seasons, perhaps there will be a different tale to tell.

Vine Re-making.

Touching on the reconstruction of old vineyards, the speaker said that up to the present little difference was evident between using a sucker for re-making a new vine, and layering the sucker to create a new vine on a new root system. If the sucker is taken from underneath the surface, it will set about to furnish itself with an entirely new root system, in close proximity to the old vine roots, the evidence of which was shown by means of a slide.

A graph showing the quantity of soil nitrates was particularly enlightening. Fallow land showed a seasonal curve, whereas land planted to a cover crop, indicated by a sharp decline how these plants depleted the soil nitrates in the course of their development. At a time when the cover crop came to the flowering stage, the soil nitrates had become almost completely exhausted. Later on, however, after the cover crop had been ploughed under and nitrification commenced, it developed and maintained considerably more nitrates than that seen in bare fallow (or clean cultivation).

The ploughing under of this cover crop took place in September, and Mr. Lyon said that if it were matured and ploughed under a month earlier, the nitrate formation would be available to the vine at a time which would be more beneficial. Referring to the need for adopting cultural practices which will stimulate growth in the vines early in the season, the speaker based his remarks on Backman's law of plant growth, which coincided with the Merbein results.

Fine shoots may be measured at any time from sprouting till maturity and the relative measurements will be maintained throughout the growing period. A shoot, two-thirds the length of its neighbor at an early stage of growth, will be found to measure two-thirds of the length at maturity.

Some interesting facts were gleaned relative to the number of canes left on strong-growing Sultana vines and the weight of fruit dried. Experiments at Merbein have shown that a limit exists, beyond which a vine cannot go.

Eight, ten and twelve canes were laid down on a replication test. The ten and twelve cane vines produced considerably more fruit, **but the dried weight was no more than the eight cane vine.** The significance of this is obvious, the handling of larger quantities of fresh fruit to obtain a ton of dry entails extra handling costs and extra rack space. Therefore it is for the trained eye to determine, at pruning time, just the number of canes a vine is capable of carrying.

Drainage.

Mr. Lyon gave a resume of the drainage works which have been established, and are in the course of construction all along the River. A special reference to the drainage of Block E was also given, to the effect that as the low nature of the country did not allow of a gravity drainage scheme, there was a general agreement that any drainage scheme in this locality would follow the lines of removal by means of electric pumps. Mildura spent half a million pounds on external drains capable of serving 30,000 acres, but sooner or later every irrigation settlement must eventually work out a system of drainage best suited to its particular environment.

At the conclusion of the meeting, Mr. L. Moss, President of the Renmark North and Chaffey Agricultural Bureau, called on O. Meier and Mr. A. Heard to pass a vote of thinks to Mr. Lyon for his entertaining and enlightening lecture.—"Nemo."

N.S.W. BANANA GROWERS.

Annual Meeting.

At the annual meeting of the New South Wales Banana Growers' Federation Co-op. Ltd., in Murwillumbah, on October 4, a motion by Mr. J. Orlov to provide that the Board should elect a Chairman from their own number, although it secured 41 votes in favor of, 23 against, was declared lost, because a two-thirds majority had not been obtained, as required by the rules.

The question of non-shareholders came up for discussion, and, as a result, the Federation Board will be requested to take steps to circularise growers, pointing out the advantages of membership of the Society, with a view to increasing the number of shareholders.

It was announced that there will be no change in the personnel of the Board. At the election of Chairman, H. A. Stevenson was declared elected.

For the election of Board members the area is divided into four wards. Two members were required from the Tweed and one each from the Brunswick, Richmond, and Coff's Harbour areas. Messrs. J. Bower (Brunswick) and R. Armstrong (Richmond) were elected unopposed, while the ballots resulted in Messrs. F. R. Halliday and H. H. Norvill being re-elected to represent Tweed, and Mr. C. R. S. Clissold was re-elected to represent Coff's Harbour.

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Motor Cars, Trucks, Tractors

Preventing Glare—*New Glass Will Help!*

DURING the recent succession of fogs in Melbourne, many motorists fitted colored cellophane to their head lamps to diffuse glare and to penetrate the fog. We noticed the same expedients used in London fogs.

The "South Australian Motorist" now reports experiments recently conducted in England and America, in which Polaroid glass has been effective in minimising the glare of oncoming motor vehicles.

Polaroid is a substance which has the appearance of ordinary glass, but it has the quality of filtering the light vibrations so that those which pass through it all occur in certain planes.

A plate of polaroid is placed behind the front glass of a head-lamp in such a manner that the light vibrations occur in planes inclined at 45 degrees to the horizontal. A similar plate is also attached to the windscreen in front of the driver in such a way as to allow the polarised light from the headlamps reflected from the road and other objects to pass through it and reach the driver's eyes, so that the objects illuminated by the polarised light are clearly visible to the driver.

An approaching car similarly equipped, has its polarised light vibrations at 90-deg. to those of the first car; accordingly the polarised light from the headlamps on one car cannot pass through the Polaroid windscreen plate of the other car, whose driver is quite unaffected by the light of the other car's headlamps.

Demonstration Given.

At a demonstration given before a learned body two pairs of headlamps were set up at each end of a darkened room. The headlamps were standard productions except that Polaroid sheets had been placed behind the lenses. Observers watched the demonstration through Polaroid windscreen plates behind each pair of headlamps.

Without the Polaroid windscreen plates, the observers received the full force of the beams from the headlamps at which they were looking and were, accordingly dazzled. Nothing else in the room was visible. But, on looking through the Polaroid windscreens the opposing headlamps seemed to be extinguished, as the light reaching their eyes was then approximately one-tenth of 1 per cent. of the original intensity.

THE SPARK PLUGS.

Deterioration Occurs.

SPARKING plugs quite definitely wear out, even though the motorist may say that they are working properly. Petrol contains minute traces of impurities, such as sulphur or iron. The former definitely leads to corrosion of the electrodes with subsequent widening of the gap. The best grades of petrol contain absolutely the minimum percentage of sulphur, but cheap petrols may contain an appreciable quantity.

Apart from increasing the gap the action of the sulphur can be such that it will upset the composition of the electrode and alter its electrical characteristics, so that the old method of cleaning the wire by emery paper may be of no avail.

Another source of deterioration is due to the iron content of the petrol. This is extremely minute, but its presence may sometimes be observed especially on porcelain plugs as a brownish coloration of the insulator.

This coating has the effect of becoming a conductor at high temperature, and may lead to missing when the engine is running fast, although at normal speeds quite satisfactory sparking may occur. It is generally impossible for the motorists to remove this coating without damaging the insulator. The rate at which it builds up, however, is very small indeed and, in general, it only assumes serious proportions when the life of the plug is finished.

Deteriorated plugs, even though they appear to be operating satisfactorily, may, in reality, be the cause of a drop in engine power and efficiency. The process of deterioration is a very gradual one, and cannot be detected easily. It probably pays to renew the plugs at intervals of, say, from 10,000 to 15,000 miles. As plugs in bad condition can appreciably increase the fuel consumption, the initial outlay will, in all probability, be regained rapidly.

WHEN THE STARTER JAMS.

Rock the Body.

The jamming of the self-starter is caused by the self-starter pinion locking in the flywheel teeth. This prevents the engine being turned by the crank. Engage top gear and rock the car gently backwards and forwards. If this does not stop the jamming, remove the bolts holding the starter to the clutch housing and repeat the performance. This will usually cure the most obstinate cases.

WATER IN THE PETROL.

How to Release.

An indication of water in the main fuel supply or in the float chamber is not necessarily a proof that the quality of the petrol being used is poor; it may be due to the natural condensation of moisture. It is a good plan to periodically clean all filters and sediment traps in the fuel system. Water, being heavier than petrol, will gravitate to the lowest part of the tank, and will only bother one when the petrol tank is nearly empty.

Some tanks have a wick which absorbs such water, but even so the tank should be drained occasionally when it is nearly empty and flushed out with petrol to remove any sediment that may have accumulated. Should the driver not want the trouble of draining his main tank, a piece of chamois leather affixed to a wire or stick can be used, as the chamois will absorb water readily. The vacuum tank, filter and carburettor should also be cleaned out periodically as it is surprising what dirt they collect.

TYRE WEAR.

Influence of Speed.

Some interesting figures are supplied by Dunlop-Perdriau as to the wear of tyres at different speeds. For instance, if a car is travelling at 40 m.p.h. on a day when the air temperature is 40 degrees F., the rate of wear will be say 100, our index figure. Under the same speed, but with the temperature at 60 degrees, the tread wear is 195, at 80 degrees it is 320, and at 100 degrees temperature the wear is 490, so that it will be seen that tyres wear faster in the hot weather.

If the speed is increased to 50 m.p.h., the corresponding wear will be 112, 220, 370 and 610 respectively. At 60 m.p.h. it will be 150, 275, 450 and 710, from which it will be seen that higher temperatures and rates of travel make greater wear on automobile tyres.

Tests have proved that wet roads cause less wear than dry, hot roads, but they advise fitting cars with non-skid tyres in Winter to ensure safer driving.

TORQUE, OR PULLING POWER.

Torque, not horse-power, is the true measure of engine efficiency. Horsepower denotes potential speed; Torque denotes actual pulling power. Thus, the greater the torque development, and the wider the speed range over which it is sustained, the greater an engine's usefulness from the truck owner's viewpoint. Chevrolet's famous six-cylinder valve-in-head truck engine develops maximum torque at low revolutions, over a wider speed range, than any competitively-priced unit—155 ft. lbs. at 900 to 1,500 r.p.m., or normal road speeds.

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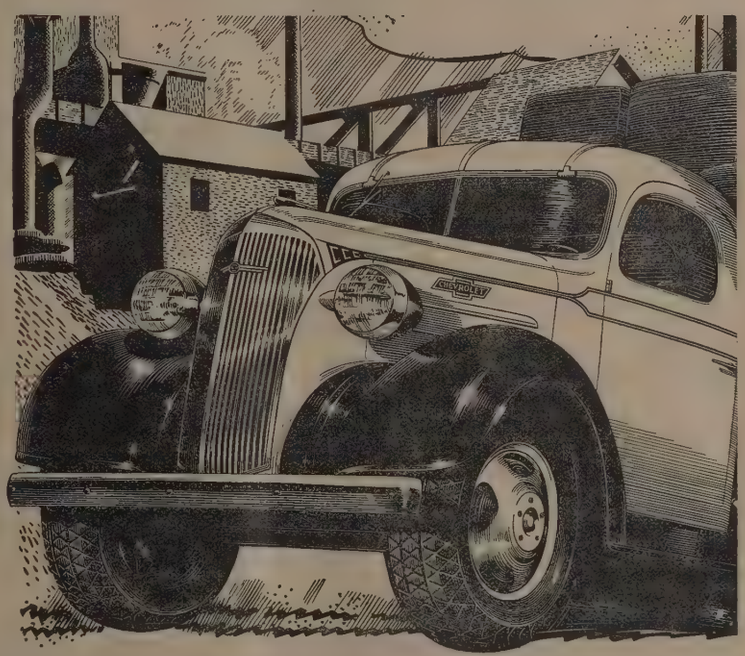

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The Soy Bean

Extremely Versatile Uses

Experiments in Australia

A RECENT enquiry from Tasmania, caused us to make enquiries at the Department of Agriculture, Victoria, as to the possibility of the Soy Bean being successfully grown in this State. We were informed that up to date, growing has not been reported as satisfactory. Experiments are being continued, however, in districts in which frosts are not prevalent.

We are indebted to Mr. Leslie Brunning, of F. H. Brunning Pty. Ltd., for the following cutting from the "Countryman," which will be of interest to any reader anticipating the planting of the Soy Bean.

Soy Beans were introduced into Australia about 20 years ago, but possibly due to lack of proper cultural methods, the results were very disappointing and the plant was not persevered with. More recent trials in some of the tableland districts of N.S.W. and elsewhere have given more encouraging results and the potentialities of this very valuable food and fodder plant are now becoming more fully realised.

Apart from the green fodder, the seed has a high economic value, and when the Soy Bean is proved to be suitable to the climatic conditions of many parts of Australia, so will this crop be more largely grown.

Utility: This may be divided into two sections (a) the green plant and (b) the seed. (a) The green plant may be utilised for grazing or for cutting for green feed; it makes a good class hay with a high percentage of crude protein and other digestible nutriments, and it is a wonderfully good legume, both for putting nitrogen in the soil and for ploughing under for green manure.

(b) In certain Eastern countries, principally in China, Japan and Manchoukuo, the seed is used for human food, and it is also very largely grown for the sake of the oil which has a high economic value, while the residue after extracting the oil makes a bean-cake, which is used both as fodder for cattle and for fertilising purposes.

Climate: Conditions in any district that are suitable for growing Maize successfully may be regarded as the best for Soy Beans. While the latter does not withstand such extremes of heat as Maize, it is hardier and resists considerable frost, both when young and old. When being grown for a seed crop, providing the pods are fairly well filled before a killing frost occurs, the plants will generally ripen to satisfactory maturity.

Soil Adaptation: Providing it contains a fair proportion of lime, Soy Beans are very adaptable as regards soils and will yield a crop on even the poorest of land. A loamy or clayey soil is the most suitable, but Soy Beans are not sensitive to an excess of moisture, although they will not thrive on land where water has laid stagnant for any length of time or on ground which is even slightly acid. This, however, is a common attribute of most of the legumes. Soy Beans are more drought-resistant than Cow-Peas and thrive better than them on moist land.

Soil Preparation: A firm, well broken-up seed bed is essential to success, and if the soil is deficient in lime, this must be added from two to three weeks before sowing the seed and thoroughly harrowed into the surface soil. Generally speaking, Soy Beans require the same preparation of the land as for Maize, with the addition of lime where necessary. Fertiliser can be added in the subsequent preparation of the seed bed or mixed with the seed when sowing. Superphosphate at the rate of 84 lbs. to 112 lbs. per acre will be found the most suitable.

Time to Sow: Soy Bean seed may be sown any time in the Spring after danger of severe frosts is over. A good rule to work on is to sow a week or so later than the earliest planting of Maize could be made in any particular district. Generally in Victoria, it will be safe to sow Soy Beans from the first week in October onwards, except in very late and very cold localities.

Seed Sowing: The quantity per acre varies according to the purpose of the crop, but generally the following will serve as a guide:—

In rows 24 inches apart: 30 to 35 lbs of seed per acre.

In rows 36 inches apart: 20 to 25 lbs. of seed per acre.

Broadcast for a hay crop: 60 to 75 lbs. of seed per acre.

When sowing with a drill, endeavor to plant the seeds from 4 to 6 inches apart in the rows so as to allow room for the plants to develop. With careful seeding when drilling in, even less than the quantities recommended will suffice. A Maize drill with a special plate or a Wheat drill with all but a few of the tubes blocked up can be efficiently utilised for the seeding operation.

Plant the seed shallow, not more than 1½ to 2 inches deep, otherwise a poor strike may result. Shallow planting lessens the chance of failure due to the formation of a soil crust and to obviate this, keep the surface loose by light harrowing before the plants come through.

In weedy ground, sow Soy Beans in rows to permit of frequent cultivation; this will give a larger yield of hay and nearly always of seed, but when planting generally for hay or for ploughing under for green manure, close drilling or broadcasting furnishes a forage of finer texture. For seed purposes and grazing, rows 36 inches apart will give the better results.

Cultivation: Under congenial conditions, the seed germinates in a few days and as soon as the young plants appear, cultivation (where sown in rows) should be begun. Any good cultivator will serve this purpose, but be careful to cultivate shallow. Soy Beans require to be cultivated about the same number of times as Maize and this should be level, to permit of harvesting being more easily carried out.

For Hay and Seed: The crop is in the best condition for hay when the pods are well-formed and should not be allowed to stand after this period as the stems rapidly become woody and there is considerable loss in leaves. The highest feeding value and greatest palatability is just as the pods are forming and the best time to cut for hay is when the seeds are about half developed.

For a seed crop, cut when about 75 per cent. of the pods are ripe, as, if left later than this, a considerable loss of seed may occur through shattering.

Harvesting for hay may be done with the ordinary mower, and both this and the grain binder may be used for seed. The seed may be threshed from the pods with the ordinary grain thresher after making the necessary adjustments to avoid cracking the grain.

Soy Bean hay compares favorably with Lucerne hay, and is superior to that from Oats, while yields of from 2 to 3 tons per acre are not uncommon. The following table from "Feeds and Feeding" (Henry & Morrison) shows the percentage of digestible nutriments in hay made from Soy Beans and other plants.

For Silage: While Soy Beans make good ensilage, better results will be obtained by mixing with either Maize, Sudan Grass or one of the Sorghums. The different crops should be grown separately and mixed together while cutting in the silo.

In Mixtures: Soy Beans may be grown in association with Maize, Sorghums and Sudan Grass, with excellent results, but this practice is not recommended in connection with Japanese Millet as the latter matures too early for the Soy Beans.

The usual proportions per acre are:—

20 lbs. Soy Beans, 2 lbs. Sorghums.

25 lbs. Soy Beans, 3 lbs. Sudan Grass.

28 lbs. Maize, 25 lbs. Soy Beans.

In all cases, it is desirable to plant these mixtures in rows about 30 to 36 inches apart. In the case of Maize, sow in alternate rows, one of Maize and one of Soy Beans, and so on. It is not advisable to broadcast these mixtures.

	Digestible Crude Protein.	Digestible Carbohydrates.	Digestible, Fat.	Total Digestible Nutriments.
	%	%	%	%
Soy Bean hay	11.7	39.2	1.2	53.6
Lucerne hay	10.6	39.0	0.9	51.6
Red Clover hay	7.6	39.3	1.8	50.9
Oaten hay	4.5	38.1	1.7	46.4

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POTATO GROWERS REFUSE A BOARD.

967 Majority Against.

Out of a poll of 3,541 growers, Victorian producers voted against the establishment of a Potato Board, under the provisions of the Marketing of Primary Products Act, by a 967 majority. The voting was as follows:—

Against a Board	2,254
For a Board	1,287
Majority against	967

There were 105 informal votes cast. 81.71 per cent. of those entitled to vote exercised their right, and of votes polled, 36.35 per cent. were for and 60.65 per cent. against. Definitely the majority were satisfied to continue the present method of distribution instead of committing themselves to any form of control.

ONION BOARD.

All Growers Now Registered.

Increasing Consumption.

Regulations under the Marketing of Primary Products Act were approved by the Governor in Council on September 29, by which all producers who planted Onions in the period from April 1 to August 31 last must have registered their names and have stated the areas planted during that period.

The Onion Board and a Committee of Merchants have prepared plans for stimulating increased sales of Onions in Victoria. The plan has the support of all sections of the trade and should be of benefit to the industry.

VEGETABLE BRIEFS.

A crop of 5,500 acres of Tomatoes was being harvested in the Sacramento Delta at last report.

The "Riverbank News," in Stanislaus County (Calif.) celebrated Tomato Week by issuing a 52-page special edition.

The first crop of English-grown Soya Beans, representing 23 acres, has been successfully harvested. In creased planting is to be undertaken and a factory erected to make by-products, including artificial silk.

California's crop of late Tomatoes this year exceeds 12,100 acres.

Lima Bean growers in Orange County last year received over £20,000 from sales.

A grower in Tehama County states that the application of ammonia to his soil, previous to planting Oats, more than doubled his crop.

Bacterial canker in Tomatoes can be minimised by soaking the seeds in a weak solution of ascetic or lactic acid, says the U.S. Department of Agriculture.

2,072,590 cases of Asparagus were canned this year according to a report of the Asparagus Industry Board, San Francisco, a decline of 277,071 cases from 1936.

A shipment of 500 tons of Potatoes recently left San Francisco for Buenos Aires, South America.

A new Tomato called the Pearson has been successfully evolved by Orange County growers.

Growing Cabbages for Market

Sowing, Transplanting, Varieties

The Cabbage is one of the most important vegetables for the market gardener. It grows best in the cooler districts, but by selecting varieties carefully the crop may be grown in most parts, says C. N. Morgan, in the Queensland Agricultural Journal.

The seed should be sown in beds of well-drained, deeply and thoroughly worked soil. The soil, if heavy, should be improved by the addition of sand or decayed vegetable manure, and if poor and sandy the addition of a loamy soil or well-rotted manure will be beneficial.

The surface of the bed should be fertilised and firmed, and the seed sown thinly in shallow drills about 4 inches apart. After sowing, the bed should be mulched with well-rotted leaf-mould to prevent excessive evaporation of moisture.

The seed-bed must be watered regularly, for a check in the growth of young seedlings is followed frequently by unsatisfactory results.

When large enough to handle, the seedlings should be thinned to an inch apart, for if grown too thickly they develop into long, spindly, weak plants.

Shading during the hottest part of the day is necessary in many cases; but this shade should be removed as soon as the plants are strong enough to withstand the heat. Overshading also produces spindly plants. Approximately 1 lb. of seed will provide sufficient plants for an acre of Cabbage.

In about six weeks the young plants should be large enough for transplanting, and then can be hardened off by restricting water supplies for a day or two before their removal to the field. Transplanting should be done in cloudy or showery weather, but if conditions are not quite favorable the young seedlings should be watered in, and, as a further precaution, the top half of the leaves may be trimmed off to lessen transpiration until the root system is established.

The loosening of the soil in the seed-bed with a fork before lifting the plants helps to save many of the small roots. If the bed had been well soaked previously, the plants will lift with a ball of soil adhering to the roots, and this will help to keep them moist.

The roots of the young plants should be kept damp after removal from the bed by standing them in a bucket containing a puddle of soil and water.

In planting, a hole is first made in the ground with a dibble—an old spade or digging fork handle is suitable. The hole should be only deep enough to allow the roots of the seedling to reach the bottom of the hole. A little earth should be turned in and the plant drawn slight upwards before pressing the soil firmly around it. This ensures that the main roots will not be doubled up.

The plants should be in rows 3 feet apart. In the rows the smaller varieties should be spaced 2½ feet, and the larger varieties 3 feet apart. The growth of Cabbages should not be checked on any account, and for that reason regular cultivation and watering are essential.

Correct varieties should be selected for different times of the year. Winter-planting types should be early and quick maturing.

In the cooler areas, seed of the early varieties is sown during the months of February, March and April. Main crop varieties are sown between August and December. The coastal districts are suited best to the Winter crop, and seed for the main crop is planted generally during December and January.

Cabbage should be marketed as soon as possible after cutting, and only those having good firm hearts placed on the market. Care in handling is essential, and when packed in bags for railing they should be packed as firmly as possible.

Recommended varieties are as follows:—

Early: Early Allhead and Early Drumhead, both of which are large, early, and quick growers.

Main Crop: Succession is the most popular variety, and may be grown almost at any time. It is a good large Drumhead type.

Surehead is slightly larger than Succession. It is hardy, and may be planted closer in the rows, as it has fewer outside leaves.

ASSOCIATION FORMED.

Potato Growers' Protection.

Brevity is not the objective of "The Commonwealth Potato Growers' Marketing and Pure Seed Co-operative Association," which was formed at Crookwell, N.S.W., recently. The objectives stated are to protect the interests of growers, endeavour to improve financial returns, and to better the present unsatisfactory conditions.

As only 20 per cent. of N.S.W. Potato requirements are grown within that State, it was considered impossible to satisfactorily control Potato marketing unless Victoria, Tasmania and N.S.W. came into a Commonwealth scheme.

A provisional committee was elected consisting of Messrs. P. Talty (Secretary), W. R. Banfield, S. Coves, A. P. Hall, T. Harris, M. Kennedy, L. Keynes, T. Kennedy, W. Lawrence and Bert Whittington.

CELERY KNOWN 3,000 YEARS AGO.

Dainty Egyptian Dish.

Few people associate Celery, that white and crisp vegetable so often on our dinner tables, with the ancient Egyptians, who flourished long before the coming of Christ.

Celery had a place in the affairs of man in those dim, buried times, according to information in the files of the Ferry-Morse Seeding Breeding Institute. Egyptologists found a garland of it on the breast of a mummy of the XXth Dynasty, discovered at Sheikh-abd-el Kurneh, near Thebes. Leaves of the garland were positively identified with those of Apium Graveolens—Celery to us.

The XXth Dynasty came to a close about 1,100 B.C., so that it is established that this vegetable which we eat so often in the year 1937 A.D., was known and used by Egyptian rulers more than 30 centuries ago.

SPEEDING UP THE SPUD.

It is advisable to hold seed Potatoes at a temperature of from 60 to 70 degrees for 10 days or two weeks before planting, says Prof. E. S. Haber, of the Iowa State Agricultural College. Warming up the seed Potatoes and getting the sprouts started before planting will result in early crops, he adds.

This applies to cold countries or where the seed has been kept in cold storage awaiting planting time, but if the shoots have already started, there is no point in warming them up.

Shipping Fruit in Gas

Elgin Corporation Corrects Temperature.

We have received the following letter from the Elgin Gas Corporation Ltd., Sydney, which explains an error that was contained in our October issue relating to the experimental shipment of fruit per "Brisbane Star" recently, in which we quoted from Mr. C. F. G. McCann's report from London. We draw attention to the Corporation's correction that the temperature was kept at 48 degrees. —Ed.

The Editor, "Fruit World and Market Grower."

Dear Sir,

Referring to an article which appeared on page 33 of the October issue of your Magazine, relating to gas storage of Oranges and Passionfruit, we are interested in a report which is included therein and issued by the State Department of Agriculture, Adelaide.

The statement, relating to temperatures, which Mr. C. F. G. McCann quotes as being made by our Chief Engineer is incorrect. The actual temperature at which the produce was carried was 48 degrees, and not 32 degrees as stated in Mr. McCann's report. The temperature was lowered 2 degrees in an endeavor to control more effectively the humidity. The humidity for these particular types of fruit should not exceed 85 per cent.

Owing to the large surface area of the cooling coils and high temperature of the brine used, and the fact that the doors of the chambers were sealed with the Commonwealth Government seal, the engineer could not gain access to the chambers to alter the coils, and therefore, the humidity was definitely out of control during the whole voyage, and averaged about 92.5 per cent. As Mr. McCann says, this was definitely detrimental to the shipment.

Whether the error was made in London or in the process of publication is immaterial, but the fact that it was printed may lead to misinterpretation by interested readers. We would be glad if you could take steps to rectify this error in your next issue as such a misleading statement is liable to prove troublesome to us.

Yours faithfully,

The Elgin Gas Corporation Limited.

(Signed) R. ANSTIE,
Managing Director.

GRIFFITH (N.S.W.) ANNUAL REPORT.

Very Successful Year.

4,405 Tons Fruit Handled.

The annual report presented to Griffith Producers for the year ending June 30, showed that satisfactory progress had been made. A profit of £3,485 was reported, and a total handling of 4,405 tons of fruit. This included 640 tons Apricots, 2,821 tons Peaches and 241 tons Tomatoes. £20,878 had been paid out in wages, and an employment of 95 persons had been averaged throughout the year.

In the packing shed, 316,138 cases of fruit had been packed representing 283,989 cases citrus, 28,317 cases Apples and Pears and 3,832 cases of Grapes and other fruits. An increase of 5,300 tons of bulk loading over 1936 brought the total up to 19,287 tons, and railway freights paid represented the sum of £36,550.

In the co-operative store the turnover had increased by £10,249 over 1936, making a total turnover of £47,270. A small profit was reported on the cool store.

Fruit Cold Stores

Progress in Queensland.

Queensland fruit growers are beginning to realise the value of cold storage. Until quite recently there was only one cold store with a capacity of 2,000 cases in Queensland. This was installed by Mr. Harry Archibald three years ago in the Stanthorpe district. Now Mr. H. McQuigan, of Thulimbah, and Mr. R. Clark, of Ballandean, have placed orders with James Budge Pty. Ltd., of Sydney, for the erection of cold stores capable of holding 4,000 cases each. Mr. John Budge, of the latter firm, has been visiting the Stanthorpe area for years, and has often pointed out the value of cold storage, and the extent to which they were availed of in the southern States. At a recent Chamber of Commerce gathering at Stanthorpe, he quoted the figures for Victoria and New South Wales, giving the Victorian capacity of fruit cold stores at 2,000,000 cases, and New South Wales at 600,000 cases. New Zealand, he said, had a cold storage capacity of a million cases. These figures have evidently impressed the Stanthorpe growers.

APPLES AND PEARS IN COOL STORAGE.

Victorian Government Statist's Report.

The following statement shows the quantities of Apples and Pears reported to be held in cool stores in Victoria on June 30, July 31, August 31, and September 30, 1937.

Apples: June 30, 1,130,000 cases; July 31, 1,030,000; August 31, 850,000; September 30, 630,000.

Pears: June 30, 128,000 cases; July 31, 108,000; August 31, 67,000; September 30, 43,000.

Ten years ago only 10 per cent. of the Almond orchards in Chico district (Calif.) were irrigated, now over 75 per cent. are irrigated.

Classified Advertisement

GENTLEMAN, 39 years, married, desires a position as manager or submanager; 20 years' experience of all branches of the fruit industry in Tasmania and Victoria. Capable of managing any size orchards, packing shed, knowledge of shipping, exporting, marketing, etc.; together with office practice.—"P.N.", c/o "Fruit World," Box 1944, G.P.O., Melbourne.

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Canned Fruits Control Board

ELEVENTH ANNNUAL REPORT

Satisfactory Progress Reported
Production Up, Exports Down

IN presenting the 11th annual report of the Australian Commonwealth Canned Fruits Control Board, the Acting Chairman, Mr. A. W. Fairley, reports a record pack of canned Apricots, Peaches and Pears approximating 2,328,292 cases and adds that 1,700,000 cases were sold overseas without any undue disorganisation of the market. The report covers the period from July 1, 1936, to June 30, 1937, and the figures quoted, in each case, represent cases containing 2 dozen 30 oz. tins, or equivalent.

Production by Years.

Since the operations of the Board began in 1926, there has been a consistent increase in annual production except for seasonal fluctuations noted in the accompanying table. Peaches, Pears and Apricots represented the order of volume produced in the following quantities:—

	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Peaches	758,999	621,630	982,939	662,927	1,113,766	683,796	532,036	1,283,389	799,156	1,101,436	1,033,607	1,393,858
Pears	229,000	171,780	394.615	286,074	393,895	102,866	439,956	529.671	339,045	499,763	808,387	807,244
Apricots	135,675	174,175	248,789	237,480	277,274	91,538	182,071	223,619	229,316	274,360	379,435	127,190
Total	1,123,674	967,315	1,626,343	1,186,481	1,784,935	878,200	1,154,063	2,036,679	1,427,517	1,875,559	2,221,429	2,328,292

Where U.K. Imports Come From.

Though Great Britain is Australia's largest overseas market, and consumes the major proportion of Australia's canned fruits production, other countries contribute to the enormous quantities of food required by Great Britain. In canned fruits, U.S.A. still supplies the greatest quantity of Britain's imports, as a glance at the following table shows. Quoting only the figures for 1936, the latest complete figures available, the quantities supplied and their proportion to the total imports into Great Britain will be seen. Figures represent cases, and are quoted from a report of the Imperial Economic Committee, London.

Country of Origin.	Peaches.	Pears.	Apricots.
U.S.A.	1,504,327	1,452,127	488,385
Australia	426,662	343,387	133,725
Canada	28,007	141,912	660
S. Africa	172	52,330	66,597
Other Countries	39,702	3,517	8,025
Total Empire Countries	454,873	537,644	200,982
Total Foreign Countries	1,543,997	1,455,629	496,410
Total Imports into U.K.	1,998,870	1,993,273	697,392
% from Australia	21.32	17.21	19,20
% from other Empire Countries	1.40	9.73	9.61
% from Foreign Countries	77.28	73.06	71.19

Thus it will be seen that Australia provides only 19.24 per cent. of all Britain's requirements of the three varieties under report, as compared with the United States supplies representing 73.84 per cent. and other British countries with 6.91, the odd 0.1 per cent. being distributed between all three suppliers.

Australian Consumption.

The report expresses gratification that the consumption of canned fruits in Australia has risen in what it calls post-depression years. From 624,115 cases consumed in 1931, the domestic market had increased to 796,213 cases in 1936, and is showing a definite tendency to firm. In addition to the fact that canned foods are being more recognised in Australia as safe to use, publicity, improved labelling and display and availability are factors that must be given some credit.

Other Overseas Markets.

The development of overseas markets, other than Great Britain, has been exploited by the Board with satisfactory and commendable success. To quote only five-year periods, the following table is significant as showing the increased exports that are recorded in the report. Still in cases of 2 doz. 30 oz. tins, or equivalent.

	1926.	1931.	1936.
New Zealand	81,260	85,498	60,803
Canada	8,294	141,459	108,361
The East	12,153	13,469	19,046
Miscellaneous	3,533	3,849	4,315
Total	105,240	244,275	192,525

The East includes the following markets in the order of their volume value:—India (7,379), Dutch East Indies (5,417), Ceylon (1,403), Egypt, Arabia and Mesopotamia (1,296), China (1,291), and French Somaliland (1,216).

The Year Reviewed.

Heavy carry-overs were reported at the beginning of the year, and London stocks were also large. In addition, a big crop of all fruits was anticipated, therefore the year opened up under not altogether favorable conditions. It is a matter of congratulation, however, that the year ended well, stocks were handled satisfactorily and cleared reasonably well.

Frosts affected the Apricot producing States, reduced production, appreciated values and resulted in the pack being the lowest on record with the exception of 1931. Peak production was the heaviest on record, while Pears were only slightly below the previous year in total volume and were a little higher in Victoria.

Oriental Peach Moth was again in evidence, and, despite combative methods, occasioned severe losses. The minimum prices stipulated by the Fruit Industry Sugar Concession Committee were:—Apricots, £12 per ton, Clingstone Peaches (clear centres), £10/15/-; other, £9/15/-; Freestone, £7; Pears, £8; and Keiffer Pears £6 per ton.

To clear the unsold stocks from the previous year, and to absorb the exportable surplus over domestic requirements, the Board estimated a necessity to dispose of something like 1,700,000 cases overseas. At time of the report this quantity had been virtually sold or on order.

London reports state that many new customers for Australian canned fruits were signed up during the period under review. Sales to June 30, 1937, showed an increase of 470,898 cases more than in a similar period in 1936, and passed the previous highest total of 1,340,556 cases for the full year of the 1934 season.

Owing to favorable conditions, the Board was enabled to raise the prices for Australian canned fruits on the London market upon two occasions, the latter rise representing an increase for all varieties and sizes.

A considerable proportion of Australia's exports of canned fruits are consigned to and distributed from outports in Great Britain. The percentage of stocks shipped to outports as compared with London has consistently increased from 11 per cent. in 1928 to 47 per cent. in 1937. Of the highest receivals by outports, Liverpool leads with 134,048 cases, followed in order by Glasgow (53,173), Hull (49,744), Manchester (47,502), Avonmouth (39,354), Southampton (20,201), and Cardiff (20,162), or a total at June 30, 1937, of 406,440 cases to outports as against 456,421 cases to London.

In the year under review, 257,142 cases of Pineapples created a record to date, and exceeded the previous year by 62,134 cases. Owing to domestic requirements, however, the export pack was the lowest since 1930, and the quantity mentioned was exported in order to keep open markets that had been cultivated and will be needed in the future. Adverse climatic conditions are said to be responsible for the smallness of the Pineapple pack, supplemented by losses through disease and pest infestations.

One outcome of the Empire Fruit Producers' Conference held in London in the middle of 1936 was the creation of an Empire Canners' Council, comprising representatives of the canning industry in all Empire countries. Australia is represented by Messrs. W. Ranger and W. B. Cooper, both of London.

Publicity was maintained by a grant from the Board of £4,000, the distribution of which was entrusted to Mr. A. E. Hyland, Commonwealth Publicity Officer in London. The Board also arranged a display of Australian canned fruits at the Singapore Trade Fair in April-May last.

Research Work.

A more intensive campaign of investigation into the control of the Oriental Peach Moth through an insectary at Mooroopna (Vic.) was undertaken during the year. Mr. G. A. Helson, Entomologist for the C.S. & I.R. proceeded to America in March to study control measures, and is receiving facilities for studying this work from the United States Department of Agriculture. The Board is also represented on the Oriental Peach Moth Committee by Mr. H. J. Williams, of the Ardmona Co-op. Co. Ltd.

Other matters dealt with in the report cover the standardisation of containers, marine freights and insurance. The financial year closed with a credit balance of £17/0/9.

LEETON HAS GOOD YEAR.

Co-op.'s Annual Report.

AT the annual meeting of the Leeton Fruitgrowers' Co-operative Society Ltd., held on September 29, the President, Mr. A. G. Enticnap, stated that the year just closed had been a successful one. A gross profit of £768/1/8 was reported in the "Murrumbidgee Irrigator."

Increased Sales.

The sales increased from £5,194/7/9 in 1936 to £12,295/9/7 in 1937. This increase is reflected in all lines sold and as the average rate of gross profit on total sales has risen from 2.8 per cent. to 6.2 per cent., the expansion of the business is on a sound basis. Machinery, the sale of which was only commenced this year, shows the greatest percentage of profit, but growers are reminded that included in the profit on machinery are the commission sales made during the year, so that the actual percentage of profit which is borne by the growers would be considerably less than 17 per cent. Another item of interest is the sale of cases. Although cases form approximately one-third of the total sales, the rate of gross profit has dropped from 2.1 per cent. in 1936 to 1.5 per cent. in 1937, and this small profit margin, together with the low profit rate on the other lines, shows clearly that the growers are able to purchase their requirements from the Society at a much cheaper rate than they could obtain elsewhere.

Dividend Approved.

Following the Auditor's statement that the position of the Society was sound, the Board recommended that a dividend of 5 per cent. be declared. After discussion, on the motion of Mr. Taylor an amendment to a proposal by Mr. Russell that the amount be placed in reserve, it was decided to declare the dividend.

A proposal that Board members receive remuneration for their services was refused by members, who stated that they gave their time in the interests of the Society. While thanking the meeting for the gesture, they would carry on as previously, without remuneration.

Canned Fruit Exports to September 30

The export of canned fruits from Australia from January 1 to September 30 reached the record shipment overseas of 1,604,894 cases of doz. 30 oz. tins, or equivalent. The destinations and quantities, in cases, are:—

Country.	Apricots.	Peaches.	Pears.	Fruit Salad.	Pine-apples.	Total.
U.K.	86,994	631,957	687,236	760	13,862	1,420,809
N.Z.	12,542	35,010	15,358	28	1,670	64,608
Canada	8,353	63,637	5,625	2,900	14,722	95,237
East	3,080	7,925	5,442	1,786	128	18,361
Miscellaneous	934	1,733	2,867	67	278	5,879
Total	111,903	740,262	716,528	5,541	30,660	1,604,894

CANNING INCREASE IN CALIFORNIA.

Peaches Head the List.

Showing how the canning industry has developed in California within the past four years, the following table, taken from a report issued by the Los Angeles Chamber of Commerce, is of interest to Australian canners since most of the competition met on the London market is from this source. The figures shown represent tons of fresh fruit used for canning in the various years shown:—

	1933.	1934.	1935.	1936.
Apricots	43,900	32,900	57,500	52,700
Cherries	6,550	2,700	2,200	3,300
Peaches (Cling)	233,900	191,300	243,000	265,000
Peaches (Free)	1,500	7,900	8,500	15,900
Pears	50,700	70,100	36,400	75,000
Plums	1,800	1,800	2,100	1,300

SHEPPARTON'S RECORD BONUS.

The Shepparton (Vic.) Fruit Preserving Company made its record bonus payment of £28,840 to growers of canning fruits recently. This represents £3 per £2/5/- per ton on Peaches. Preton on Apricots and Pears, and viously, growers who supplied the cannery had received a bonus of 15/- per ton for Peaches.

The total payments made to growers during the last packing season were:—Apricots, £15 per ton; Peaches, £13 and £12, and Pears, £11.

TOO MANY PINEAPPLES.

Excess Planting Feared.

The average annual yield of Pineapples in Queensland is about 300,000 cases, about 45 per cent. of which is surplus to fresh fruit market requirements, and is absorbed by canneries. A slight expansion in local consumption of fresh fruit might be possible, but it is reasonable to assume that growers must look to canning factories for the absorption of the major portion of the yields from the new areas, said Mr. W. J. Adams, Secretary of the Canned Fruits Control Board, recently. The Board is concerned at the reported recent heavy increases in planting in Queensland.

As a portion of the present output of canned Pineapple is required to be exported to ensure stability on the Australian domestic market, it is obvious that the extent to which oversea markets can be developed is an important factor in determining the additional quantities of fresh Pineapples which processors could economically handle. The export markets available to Australia were limited, both in number and volume, and were restricted to those Empire countries which accord preferential tariff treatment over foreign competitors. The only markets of importance open to Australia are Great Britain and Canada, and to a lesser extent, New Zealand.

The State Government is making available to the University of California a grant of £9,000 for orchard heater research.

11,330 CASES FOR CANADA.

Shepparton's Big Day.

September 3 was a red-letter day at the Shepparton Cannery in that on that day the Cannery despatched 11,330 cases of canned fruits for shipment to Canada. The shipment comprised Apricots, Pears, Peaches and fruit salad, and represented 610 tons by weight.

The only consignment to exceed the present one was on the occasion of the goodwill trade mission to Canada some years ago, when exceptionally heavy stocks were loaded in expectation of a rush of orders. The present shipment represents fruit which has already been ordered.

CANNED CUTTINGS.

18,000 more families in Milwaukee, the big beer manufacturing city in U.S.A., are buying canned Peaches in 1937 than did so in 1936, according to the "Milwaukee Journal."

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Apple sauce from Gravensteins will absorb enough fruit to make 1,000 cans at Sonoma County.

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Figs worth £73,800 were canned by four California canneries this year.

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Communists in California, frustrated in an attempt to control 60,000 cannery employees, are not attempting to organise orchard workers and stop the flow of fruit to the canneries.

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One cannery in Whittier (Calif.) will process 250 tons of Mushrooms this year.

Fairfield Cannery (Calif.) set a new record by canning 2,000 cases of Asparagus per day for 50 days.

1¼ MILLION TONS OF GRAPES.

California's 1936 Harvest.

In 1936 California produced 1,714,000 fresh fruit tons of Grapes of all varieties. The disposition of such was 3,200 Raisin Grapes canned, 733,700 tons (mixed) dried, 420,400 tons shipped fresh out of the State, 494,000 tons crushed for Grape juices, and 62,700 tons used fresh within the State. This represented an increase of 54,000 tons since 1933.

Book Reviews

Commercial Fertilizers.

A book of special interest to agriculturalists has just been published by "The Orchardist of New Zealand." This is "Commercial Fertilisers and Their Basis of Sale," by J. A. Bruce, A.N.Z.I.C., Inspector of Fertilisers for the New Zealand Department of Agriculture. This publication, designed to meet the needs of all primary producers, covers a subject which has been only poorly dealt with in the past. Most books of the type deal principally with overseas conditions, and Mr. Bruce has filled a long-felt need by writing with particular reference to New Zealand problems and New Zealand soils.

The book is furnished with a comprehensive index, to aid easy reference, and with a series of informative diagrams. The author has included everything likely to be needed, particularly by the N.Z. farmer, while still giving an outline of overseas conditions, and is to be congratulated upon a genuinely helpful work. Copies can be obtained from the New Zealand Fruitgrowers' Federation Ltd., Wellington, C.1, price 3/6 post free.

Extermination of Weeds.

We have received copies of a booklet prepared and being distributed, gratis, by Messrs. Victor Leggo & Farmers Ltd., dealing specifically with the extermination of weeds. In an accompanying letter they state that the Government vermin and Noxious Weeds Department, over a period of years, has carried out exhaustive tests with all types of weed exterminators and have found that weed killers containing a highly concentrated arsenical base have proved more effective and economical than any other class, consequently the Department uses large quantities of Leggo's arsenical weedicides.

Credit is given to Mr. Pemberton, Superintendent of the Vermin and Noxious Weeds Department, for supplying valuable information as to methods of application and effective dilutions to be used. The booklet sets out concisely the latest methods of preparing the weeds before poisoning, dilution scales, how to apply, and times to spray. It gives tables of information for the various weeds, burrs, thorns and other plant pests to be found on both cultivated and uncultivated land and will be found most useful to anyone experiencing these problems. Booklets can be obtained from the company, free upon application to 222 Queen-street, Melbourne, C.1.

FRUIT PROSPECTS GOOD.

The Victorian Department of Agriculture's latest report predicts a good crop in all fruit districts. In the Goulburn Valley conditions are in favor of an excellent season all round. Plums and Moorpark Apricots will be light, but other fruits show a good crop, especially the canning varieties of Peaches and Pears.

At Harcourt all fruits appear to be setting well, and Pears and Peaches will require to be thinned unless there is a heavy shedding.

In Horsham Aprioots have set a heavy crop, while at Doncaster the fruit crop should be good. The Apricot crop at Keilor is irregular. At Templestowe there is an exceptionally heavy setting of Peaches. All crops in Gippsland are showing a heavy setting.

The blossoming of Orange and Lemon trees at Mildura has been heavy, and the prospects for a satisfactory setting of Grapes are excellent.

Empire Co-operation Appreciated

Fruit Research Service

WHAT better reply is needed to the suggestion that the fruit industry and trade are indifferent to the value of research than the extension of the Covent Garden Storage Research Laboratory? asks a writer in "The Fruit Grower" (Eng.). The need for larger premises was occasioned by the marked interest shown in the quality of the produce, home and imported, by wholesale and retail distributors, and by Governments and growers throughout the British Empire; and with the widened scope for research work, the service rendered in the future will be all the more valuable, further reflecting that appreciation on all hands of the contribution that science can make, if steadily pursued, to the difficult problems with which the industry is confronted.

It will be recalled that the Covent Garden Laboratory was established in 1927, that being the year in which also the erection of the Ditton Laboratory, East Malling, was begun. Its work has not received the same amount of public notice as has that of the central fruit storage research station in Kent, but the Food Investigation Board was pleased to report not long ago that, as a result of the lively and increasing interest which the quality factor in fruit as a prime distribution essential had aroused, the scope of the Laboratory's work had widened, to meet which larger premises were required. On the Board's recommendation, "a substantial extension" was approved by the Privy Council for Scientific and Industrial Research.

Here is a striking example of Empire co-operation, since the work which the Laboratory does for the overseas portions is paid for by the Dominions and Colonies concerned. One of its main tasks is to examine and report on experimental consignments of fruit despatched from the Dominions, with the collaboration of the shipping companies. The equipment of the new premises includes three cold storage chambers, one maintained at 34 deg. F. for delaying ripening, and for observation on Apples, another at 45 deg. for work on citrus fruit, and the third, at 65 deg., is used as a conditioning room for initiating ripening.

In the last annual report issued by the Food Investigation Board, it was stated that among the lines of work that it was hoped to develop at this laboratory were studies on methods of assessing quality and of fixing standards, and it is this aspect of its investigations which is of the utmost interest to overseas shippers, as occasional references to the subject in the reports of the National Federation of Fruit and Potatoes Trades show. The authorities appreciate to the full their obligations, and the advance which is implied in the necessity for moving the laboratory to larger premises is proof that the interdependent constituent interests they set out to serve are being well ministered to.

Almond Pollination Investigations . . *Varieties Recommended*

THE following report comes from the N.S.W. Director of Plant Breeding, and reports the result of investigations conducted by Mr. W. Poggendorff, Plant Breeder at the Rice Research Station, Yanco, and Mr. J. D. Bryden, orchardist, Wagga Experiment Farm.

Almonds are becoming an increasingly popular crop amongst fruit growers; they have taken their place with recognised orchard trees, and are being planted in orchard formation, in suitable areas, where they can be given due attention, instead of being relegated to boundaries as windbreaks and more or less neglected.

Many varieties are available to growers, but plantings are generally confined to "soft-shell" and "papershell" types, the remaining "hardshell" varieties, though often attractive in appearance, being difficult to crack with the fingers for dessert purposes, and having no compensation to offer for the greater power required to crack them by machinery commercially.

The Almond has the peculiarity of being "self-sterile"; at least two varieties with similar flowering periods must be grown together to ensure effective cross-pollination and setting, but it is a matter of experience among growers that all varieties, even when blossoming together, are not equally suitable.

Experiments were commenced in 1932 to determine which of the available varieties were most effective as mutual pollinators. Records of yields, proportion of kernel to shell, size of nuts, etc., were also made to determine the best varieties from a commercial standpoint. Accurate descriptions of varieties have also been made to eliminate the confusion in nomenclature which appears to be prevalent.

These experiments were commenced at Yanco, but have been transferred to the Wagga Experiment Farm, where a more complete collection of varieties is available. To the end of last season, some 22,000 hand-pollinations have been made, from the results of which some definite recommendations can now be made.

The varieties mainly used, in approximate order of blossoming, were:—Brandes' Jordan, Stockham's Papershell, Early Papershell, Large Papershell, Chellaston, Riverside Peerless, Johnson's Prolific, Strout, IXL, White Nonpareil, Hatch's Nonpareil.

Jordan Hardshell was the only hard-shell used, and is probably the best of this type, which is in demand to a limited extent.

Taking the recommended varieties, in order of blossoming, Messrs. Poggendorff and Bryden indicate that the best respective pollinators are as follows:—

Brandes' Jordan.—Early Papershell, Riverside Peerless, Chellaston, Johnson's Prolific.

Stockham's Papershell.—Riverside Peerless, Large Papershell, Early Papershell, Chellaston.

Early Papershell. — Stockham's Papershell, Chellaston, Riverside Peerless, Large Papershell.

Large Papershell. — Stockham's Papershell, Chellaston, Early Papershell, Riverside Peerless.

Chellaston. — Stockham's Papershell, Early Papershell, Brandes' Jordan, Riverside Peerless.

Riverside Peerless.—Early Papershell, Chellaston, Stockham's Papershell.

Johnson's Prolific.—IXL, Riverside Peerless.

Strout.—IXL.

IXL.—Riverside Peerless, Johnson's Prolific, Stockham's Papershell, White Nonpareil.

Hatch's Nonpareil.—Johnson's Prolific, White Nonpareil, IXL, Riverside Peerless.

Early Papershell and Stockham's Papershell are good pollinators for Jordan Hardshell when it is desired to grow this variety for a particular market.

From this list given any grower can choose varieties to suit his purpose, whether for a new planting, or to provide better pollination for his existing plantings. Suitable combinations may be varied indefinitely, some which are suggested are:—

1—Early Varieties.

A—Brandes' Jordan, Chellaston, Early Papershell, Riverside Peerless, Stockham's Papershell.

B—Chellaston, Stockham's Papershell, Riverside Peerless, Large Papershell, Early Papershell.

2—Mid-Season to Late Varieties.

C—IXL, Riverside Peerless, Stockham's Papershell, Johnson's Prolific.

D—Hatch's Nonpareil, Johnson's Prolific, Riverside Peerless, IXL.

In general, it has been found that if one variety is a satisfactory pollinator for another, then the reverse also holds good usually, although exceptional cases appear to occur Allowance must also be made for the relative overlap of the blossoming periods, as it has been found that the best actual pollinator for some particular variety may only just overlap with it in blossoming, it would be inadvisable to rely solely upon the latter, in preference to another variety whose blossoming period overlaps better, although the actual setting obtained with it by hand pollination was less.

The crossbred material of known parentage obtained in these investigations is being grown on, in the hope of producing still better varieties, and more suitable pollinators for some of the existing varieties. The experiments are being continued to complete and confirm the information already obtained, and to include new varieties.

APPLE BY-PRODUCTS.

U.S.A. Leads the Way.

Tasmania's Report.

IN an article by Mr. P. H. Thomas, Chief Horticulturist, Tasmania, he tells what he saw during a visit to U.S.A. In reporting upon the growing industry of converting Apples into by-products, he says:—

Dried, Cider and Vinegar.

These are the principal by-products being used.

Owing to the Codlin Moth infestation, the percentage of culls in some districts is rather high. During recent years growers have been concerned with the disposal of this class of fruit (mostly Apples with a number of healed-over stings), and a movement has been inaugurated in the principal Washington districts to keep it off the retail market.

Prices at the factories for cull Apples during recent years have been very low; in fact, in some instances the packing sheds have availed themselves to this means for the convenient disposal of this class of fruit at a nominal price per ton. This year, however, a movement has been started to obtain a minimum price for cull Apples, and owing to the short crop, prices have much appreciated.

Discussing the principal by-products, he stated that over 80 per cent of the vinegar used throughout the Western States is manufactured from Apples. It is pleasing to taste, and is used for domestic and processing purposes. At some of the vinegar factories visited the pomace left after juice extraction was being dried in a large rotary cylinder and converted into stock food.

Cider and pasteurised Apple juice are popular throughout the Western Apple districts, although the competition from other fruits, such as the Orange, Tomato, Prune, Pineapple and Grapefruit is very keen.

For 5 cents (2½d.) at most of the cafeterias or drug stores a glass of freshly pressed juice can be obtained. Of the other products, canned Apples, dried Apple rings, dried Apple chops are commercially produced in large quantities.

Amongst the confections one known as "Aplets" is being manufactured that is most attractive. This is put up in a large range of sizes and is a valuable advertising medium for the Apple industry.

THE FRUITGROWERS' "IF."

An Orchardists Advice to His Son.
(With Apologies to Kipling.)

If you can check your pests, when all about you
Are breeding them and loosing them on you;
If you can trust yourself when bankers doubt you,
And make your overdraft a pound or two;
If you can work and not be tired of working,
Till late at night, from when the Sun doth rise,
Keep at it, too, no single job once shirking,
And yet don't talk too much or seem too wise.

If you can dream, but remember you're the master;
If you can think, and concentrate your aim;
If you can lose your crop in some disaster
And look ahead to next year just the same;
If you can bear to see your best trees broken,
Twisted and torn about by thieving fools,
Then plant afresh with ne'er a hard word spoken,
And hoe and prune again with worn-out tools.

If you can burn the heaps of all your prunings
And never scorch a tree or have a loss;
If you can soothe your men, but not by croonings,
And yet remember that you are the Boss;
If you can grow your trees as tough as sinew,
They'll serve their turn long after you are gone;
So prune with all the brains that you have in you,
In spite of winds the fruit will still hold on.

If you can think of agents (and keep virtue)
Who quote a price they never seem to touch,
If neither banks nor mortgagors can hurt you;
If you've enough to live, but not too much;
If you can keep your work up to the minute
And do a job just when it should be done,
And know your place, and everything that's in it—
You'll be a credit to your Dad, my Son.

ARTHUR WREFORD.

SPECIAL NOTICE TO FRUITGROWERS

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In response to numerous requests from growers for information as to who are members of the

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Correspondence is invited by the Association.

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Export & Commercial News

N.S.W. Chamber of Fruit and Vegetable Industries

Annual Dinner

A Representative Gathering.

THE third annual dinner of the N.S.W. Chamber of Fruit and Vegetable Industries was held t the C.T.A. on October 16. The unction was the most representative nd successful trade gathering yet eld in Sydney. There were over inety guests, which included the ollowing:—The Hon. G. C. Gollan, I.L.A. (Assistant Minister, repreenting the Hon. Premier), R. J. Iawkes (President, Sydney Chamber f Commerce), W. Taylor (N.Z. Trade nd Tourist Commissioner), Dr. Garet Halloran (President, Rotary Club f Sydney), F. C. Garside (Asst. Railway Commissioner), W. A. Kimer (Asst. Goods Superintendent, .S.W. Govt. Railways), Col. E. E. ferrod (Sec., Fruitgrowers' Federaion of N.S.W.), F. C. Moat (Presient, Master Carriers' Assn. of .S.W.), J. G. Beacham (Sec., Master arriers' Assn. of N.S.W.), J. Y. heridan (Sec., Master Fruit Carriers' ssn.), J. H. Kidd (Redlands Bay, ueensland), E. P. M. Sheedy (E. P. I. Sheedy & Sons), D. D. Atkins Senior Inspector, Dept. of Agriculure), R. D. Westmore (Sec., Sydney hamber of Commerce).

Apologies were received from:—ight Hon. J. A. Lyons, M.P. (Prime Iinister), Hon. H. V. Thorby, M.P. Assistant Minister for Commerce), Ion. B. S. B. Stevens, M.L.A. (Preier), Hon. M. F. Bruxner, M.L.A. Minister for Transport, N.S.W.), Ion Hugh Main, M.L.A. (Minister for griculture), Hon. A. G. Ogilvie, M.H.A. (Premier, Tasmania), Hon. obert Cosgrove, M.H.A. (Minister or Agriculture), Alderman The Hon. rch'd. Howie, M.L.C. (Lord Mayor f Sydney), Roy Hendy (Town Clerk, ydney), C. E. Critchley (Australian rade Commissioner in N.Z.), J. H. T. IcMurtrie, (Chairman, O.S.R.A.), G. . Ross (Under Secretary, Dept. of griculture), T. J. Hartigan (Comissioner for Railways), D. J. Howse Acting Assistant Chief Traffic Ianager), Jas. Heane (President, .S.W. Fruit Growers' Federation), . J. Honey, S.F.A.I., and members tate Fruit Board, Tasmania, J. B. Iills (President, Australian Apple nd Pear Export Council), R. E. oardman (Sec., Australian Apple nd Pear Export Council), W. J. lack (President, N.S.W. Citrus Deence Assn.), F. G. Bryant (Sec., .S.W. Citrus Defence Assn).

The Toast of Parliament was proosed by Mr. P. S. MacDermott, as hairman of the Fruit Merchants' ection, Sydney Chamber of Comerce. Mr. MacDermott, while adititng that the Government had, on any occasions, come to the assistnce of the producers, said that legisation had not been sympathetic to he distributing side of the industry. Ie was of opinion that there should e as little Government interference s possible in the industry.

The Hon. G. C. Gollan, Assistant Iinister, representing the Hon. Preier, in his reply, advised that the overnment was not anxious to take egislative action in regard to the ruit industry. It was, however, at ll times prepared to assist the inustry in its efforts to obtain better onditions. He instanced the appointment of the Royal Commission by the N.S.W. Government, and Mr. J E. McCulloch, Stipendary Magistrate, was at present conducting this enquiry. His terms of reference were very wide, and as a result of the enquiry, the Commission would be able to make definite recommendations to the Government.

The Toast of the Fruit and Vegetable Industries was proposed by the Assistant Railway Commissioner, Mr. F. C. Garside, who in a very able speech, pointed out the importance of the industry and the assistance that had been rendered by the Railway Department, amongst others, in the past. The Toast was responded to by Col. E. E. Herrod, Secretary of the Fruit Growers' Federation of N.S.W., in the unavoidable absence of his President, by Mr. J. H. Kidd, representing South Queensland Fruit Growers, and by Mr. L. J. Jenkins, President of the N.S.W. Chamber of Fruit and Vegetable Industries.

All speakers emphasised the necessity for co-operation between the producing and distributing sides of the industry.

The Toast of "Our Guests" was proposed by Mr. A. C. Ward, and responded to by Mr. W. Taylor, New Zealand Trade Commissioner, Dr. Garnet Halloran, President of the Rotary Club of Sydney, and Mr. F. C. Moat, President of the Master Carriers' Association.

Again the key note of the speeches was the necessity for full co-operation between the two essential elements, namely, producers and distributors, and reference was also made to the good work being done by the N.S.W. Chamber of Fruit and Vegetable Industries towards this subject.

The Toast of The Chairman (Mr. L. J. Jenkins) was proposed by Mr. E. P. M. Sheedy.

During the evening, presentations were made on behalf of Messrs. J. Moss and L. Moss, to Messrs. Jenkins, Musgrove and MacDermott, as a mark of appreciation of the impartial manner in which the officers of the Chamber had served the industry.

Musical and comedy items were interspersed, and the gathering was a most happy and enjoyable one.

OFFICIAL LIST OF EXPORTERS.

For Use of British Importers.

The Director of Agriculture, Mr. H. A. Mullett, advises that his Department is preparing a comprehensive list of exporters of produce from Victoria. This list is being prepared for use here and for the information of importers in the United Kingdom, to whom copies will be made available by the Victorian Agent-General in London. The list will be printed within the next few weeks, and in order that it may be as complete as possible, the Department is anxious that exporters who have not yet accepted the invitation to have their names included in the list should forward immediately to the Department of Agriculture, Melbourne, particulars of the class of business handled, the names and addresses of their agents in the United Kingdom and their Victorian cable address.

FRUIT EXPORTS TO NORFOLK ISLANDS.

Amended Regulations for Admission.

By proclamation dated September 16 the Government of the Commonwealth has modified the embargo on the importation of certain fruits into Norfolk Island as follows:—

(a) The importation of citrus, Cherries and Grapes is prohibited unless they—

(i.) are in clean and new containers

(ii.) are sound and not diseased or otherwise in an abnormal conditions; and

(iii.) are accompanied by a certificate signed by an officer of the Department of Agriculture or other competent authority of the exporting country certifying that no Fruit Fly is known to exist in or within one mile of the orchard where such fruit was grown; and

(b) The importation of any fruit trees or ornamental plants other than the seeds thereof is prohibited unless—

(i.) they are accompanied by a certificate signed by an officer of the Department of Agriculture of the exporting country certifying that the fruit trees or ornamental plants have been examined and found to be free from diseases and pest;

(ii.) they have been fumigated with hydro-cyanic acid gas or carbon bisulphide in such a manner as to destroy all insect pests;

(iii.) they are free from soil except in the case of pot plants; ,

(iv.) they are packed of wrapped in material other than grass, hay, straw or other similar material; and

(v.) the containers are clean and new.

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SELLING FRUIT BY COUNT.

Amendment of Act Demanded.

"Argus" Supports Reform.

DURING October the Agricultural Editor of the "Argus" dealt extensively with the argument that fruit should be sold by number. The series of articles placed before the public the reasonableness of the count method of selling large fruits such as Apples, Pears and Peaches by count instead of by weight.

Much interest was shown in the articles, and many letters were received by the "Argus" in response. The Metropolitan Fruit Retailers' Association, the Housewives' Association, and several private growers and sellers all supported the paper's commendable action.

It was a good and topical introduction to the public of the fact that the matter of selling by count is definitely being considered by the trade and told the consumers that this method would be to their benefit as well as that of the trade. We appreciate the interest of the "Argus" and suppor the propaganda in favor of this im portant question.

Victorian Fruit Marketing Association

EXECUTIVE MEETING

A MEETING of the Executive o the Victorian Fruit Market ing Association was held a the Board Room, Commercia Travellers' Association, on Friday October 8, 1937.

There were present Messrs. G. W Brown (Chairman), A. S. Harrison J. B. Mills, W. P. Hutchinson, F Moore, Esmond Russell, J. J. Tully J. W. Barker, K. Weeding, G. H Sprague, G. Douglas, R. A. W Bailey, F. Cave, H. M. McLean, S Brown, C. H. Jost, W. H. Carne, J M. Ward (Superintendent of Horti culture), E. N. Robinson (Common wealth Co-ordinating Officer), and the Secretary, R. E. Boardman.

An apology was received from Mr K. Eagle.

Mr. A. S. Harrison (who presided at an early stage of the meeting) tendered a hearty welcome home to Messrs. Mills and Weeding.

Trade with the East.

The Chairman read the report of the Sub-Committee on this subject in which (a) was advocated a trade agreement between the Australian Government and the Government of the Dutch East Indies in order that only a defined quantity of Apples could be imported from Australia, thus doing away with indiscriminate shipments; (b) the question of sending a slightly lower grade for the native population was raised for discussion.

Mr. Weeding definitely advised agianst any attempt to develop trade in anything but the best fruit, as the trade in Apples was only possible for the European population, and the better class natives. In the Netherlands East Indies, there was a market for 6,000 cases per fortnight. If the trade could be better organised from the Australian end, merchants in the N.E.I. would erect cool stores, thus to fully develop the trade. Only specific quantities should be sent on a system controlled by permits.

Regarding India and Ceylon, Mr. Weeding considered a reasonable trade could be developed.

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The Chairman welcomed Eastern Trade Commissioners, Mr. Critchley (Batavia), and Mr. Nutt (Shanghai).

Dutch East Indies.—Mr. Critchley stated that in his opinion there was no possibility of a trade agreement between Australia and Netherlands East India, and such an agreement was not favored by either Government, nevertheless, as the N.E.I. were very willing to do everything by which Australia could send more goods there, the Dutch Government would help unofficially, as they had done to assist butter export from Australia. Some traders were first-class, some were unreliable. He believed that a control system was necessary to administer and develop the trade.

Mr. Russell said that if receivers were licensed, and shippers in Australia had to produce evidence that the fruit was sold to such licensed traders, this would probably meet all requirements.

In reply to questions, Mr. Critchley stated that of the fruit imported into Netherlands East Indies in 1935, Australia supplied 44 per cent., United States of America 40.7 per cent., and Japan 9.4 per cent. Despite the improved shipping service from South Africa to Netherlands East Indies, he did not think South Africa would compete seriously with Australian Apples —South Africa would probably send Grapes, Peaches, Plums, etc.

With regard to **advertising**, there was nothing to be gained by advertising Australian fruit. The only method which would help would be for an educational campaign, backed by medical authority, to increase the sale of fruit generally. Traders had pointed out that though America and Australia used the same sized case, the American case contained a heavier weight of fruit than the Australian. Traders preferred the count system instead of size being marked on cases. At the present time N.Z. paid a higher freight than Australia on Apples to N.E.I., but efforts were being made to bring these freights into line.

Trade With China.—Mr. Nutt said that with reference to goods from Australia—Shanghai and Hong Kong were the important ports.

The fruit business was on a buying basis, and there was no consignment trade. The main Apple varieties sent were Granny Smith and Democrat, the former being most popular. Australian fruit was well known and appreciated, and the trade depended upon the price, competitive quotes were received from New Zealand.

Any expansion of the business depended on economic and financial conditions. There was no need for control methods. One complaint in the trade was that whereas an American bushel could be guaranteed at not less than 40 lb. (and the weight was usually 43 lb.), the Australian bushel contained only 38 lb. At Shanghai there was a duty of 4/- a case on Apples from whatever source. Whereas it cost Australia £1 a case to put the Apples in Shanghai, Japanese Apples could be landed for 9/-.

With regard to Hong Kong, the trade was now largely in the hands of Chinese merchants. The fruit business was on a buying basis. There were no consignments, and the trade was well conducted. There was no duty of any kind at this port, and the freight from Australia was less than to Shanghai. Australian Apples were liked better than American. The Granny Smith was most popular.

Replying to a question on the subject of **advertising**, Mr. Nutt said he believed it would be of advantage for Australia to conduct an advertising campaign by means of newspapers, also posters and showcards—these would all be in the English language.

Messrs. Critchley and Nutt were cordially thanked.

Cool Storage Enquiry.

In answer to V.F.M.A. letter requesting the Minister for Agriculture to include a representative of the Orchardists and Cool Stores Association on the Enquiry Committee, Mr. Hogan wrote stating the matter would receive consideration.

Mr. Russell reported that the various sections of industry needing cool storage each had two representatives on the Committee, and the view was held that an addition to the fruit industry delegates would upset the balance of representation. An assurance had been given that present rates would not be increased.

Mr. Tully urged that representaton by the Cool Stores Association was justified. Instead of the Government keeping £90,000 in trust, at least half that sum should be expended now in providing needed storage space.

Mr. Thiele gave a specific instance of unsatisfactory storage in a suburban proprietary store, and at the request of Mr. Russell promised to send forward the complaint in writing.

Other items dealt with included:—Mutual quota with New Zealand; varieties for export; Employers' Federation; Long range weather forecasts; Trade with Manchester; International Horticultural Congress; and Apple and Pear Bounty.

Next Meeting.

Decided that the next meeting be held on Friday, November 26, 1937.

Annual Meeting.

The annual meetng of the V.F.M.A. was held in the Board Room, Commercial Travellers' Association, Melbourne, on Friday, October 8, 1937, at 2.45 p.m. In the unavoidable absence of the President, Mr. A. S. Harrison took the chair.

The minutes of the previous annual meeting were read and confirmed.

Annual Report.

In moving the adoption of the annual report, Mr. Harrison dealt with the many matters which had been dealt with by the Executive during the year. Mr. W. H. Carne seconded the adoption of the report. He said that useful work had been accomplished on behalf of the industry; special thanks, he said, were due to Messrs. Brown, Mills, and Moore.

The motion was carried.

Executive Committee.

The Secretary reported that the present Executive had been re-elected with the exception that Mr. H. J. Noonan had been elected as one of the Metropolitan delegates in place of Mr. W. A. Thiele, who recently resigned. The Executive thus consisted of the following:—

Growers.

Harcourt and Northern District.—G. Douglas, H. W. McLean, K. V. Eagle.

Goulburn Valley.—Messrs. J. G. B. McDonald, M.L.A., W. Young.

Metropolitan.—F. Moore, J. J. Tully, H. J. Noonan.

Gippsland.—W. H. Carne, S. Brown, R. A. W. Bailey.

North Western.—C. H. Jost.

Peninsula.—G. W. Brown (President), W. P. Hutchinson, G. H. Sprague.

Shippers.

Messrs. Mills, Harrison, Weeding, Mellor, Barker, Cave, Russell.

The Chairman tendered a welcome to Mr. H. J. Noonan.

Mr. J. B. Mills (President Australian Apple and Pear Export Council addressed the meeting on the subject of "Marketing Australian fruit abroad" (see summary of report elsewhere in this issue).

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VEGETABLES UNDER GLASS.

Increasing in Britain.

The 1936 report of the Imperial Economic Committee shows that in Great Britain the production of vegetables under glass is increasing each year. In 1935 the total area under glass in England and Wales was 3,360 acres, representing 3,100 acres under glass houses and 260 under glazed frames. This shows an increase from 2,725 acres in 1925.

The selling price of such products in 1935 was £6,965,000, as against £4,830,000 in 1925, and the return per acre in 1935 was £2,070, as against £1,770 in 1933. In the 10 years under comparison Tomatoes produced under glass returned £2,520,000, as against £2,350,000, Cucumbers £800,000 as against £750,000, but other vegetables at £250,000 were of equal value in both years.

Tomatoes sold in 1935 were 59,000 tons, an increase of 12,000 tons over 1925 figures. Cucumbers also increased to 75,000,000 in 1935 from 50,000,000 ten years previously.

Australian Pears in U. K.

Mr. F. J. Garford, who for the past seven years has represented the Southern Victoria Pear Packing Co. in England is now in Australia for a short visit.

He presented interesting and valuable reports to his company, and also attended the Annual Conference of the Australian Apple and Pear Export Council in Sydney, at the end of October.

When interviewed by the "Fruit World" on the subject of Pear export to England, Mr. Garford said that from reports received from growers in different States, it would appear that aggregate Pear exports in 1938 would be considerably less than in 1937. Owing to its stability he considers the long bushel case most suitable for export.

Mr. Garford said that for some unknown reason most of the Pears which are bulge packed in "standard" cases when shipped from Australia, arrive in England flat, and consequently slack. He considers the most suitable varieties for export are:—Winter Nelis, Josephines, Doyenne du Comice, Packhams, and B. Bosc; and the most suitable sizes for United Kingdom markets, 144's and 168's. Packhams increase in flavor, but unfortunately run to large sizes.

Continuing Mr. Garford said that the imports of Australian Pears into England showed a tremendous increase in the past few years, and the opinion was held that saturation point was being rapidly approached.

Each succeeding year saw a lessened demand for the lower grade varieties, such as Howell, Kieffer and Glou Morceau, and there was no doubt that in a normal season these varieties would be almost unsaleable in the near future.

Packing and grading of Australian Pears had shown great improvement of late years, but in these respects Australian Pears on the whole were much behind the products of the Pacific Coast States of U.S.A.

"If good quality is maintained," concluded Mr. Garford, "I consider that Australian growers will continue to show profitable returns from Pears sent to the United Kingdom for some years to some."

Empire Producers' Conference

In Sydney Next March.

As part of the policy of celebrating the Sesqui-Centenary of Australia in Sydney next year, not the least important engagement will be the Empire Producers' Conference. Primary producers from all Empire countries will be represented.

One of the objects of the conference will be to establish a permanent central organisation, embracing all sections of the farming community of the Empire, to safeguard their interests, and form a bridge of goodwill between the farmers and the Motherland and the overseas Dominions.

The conference is being eagerly looked forward to, and it is confidently expected that it will result in a thorough understanding of the marketing and other problems confronting primary producers in various parts of the Empire, and be productive of material benefits to all concerned.

The N.S.W. Country Celebrations Committee, which comprises representatives of all the chief producers' organisations, conducted an extensive correspondence regarding the preliminary organisation, and a draft agenda was submitted to leading organisations of farmers in the United Kingdom, Ireland, Canada, South Africa and New Zealand. There has been an enthusiastic response from all parts of the Empire, and arrangements are now far advanced.

The Empire Producers' Conference will begin on March 26, 1938. Delegates will visit the principal pastoral and agricultural districts prior to the conference, accredited delegates being the guests of the State of New South Wales. The Governments of all the other States have agreed to accredited visiting delegates being granted free passes on the railways during their stay.

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Interstate Market Notes & Prices

Fruit Prices in the Sydney Market

Survey of Operations for the Period September 25 to October 25, 1937.

THE past few weeks have witnessed rains throughout most of the Eastern States of the Commonwealth, and the temperature has been cool, with a reversion to almost Winter conditions at times.

Although values of Oranges have been higher than for some years, the large quantities of Apples available, and the difficulty of clearing stocks had a depressing effect upon the spirits of most vendors. Retailers, in turn, complained of a limited turnover and very few were prepared to purchase quantities of fruit above their definitely known requirements.

Apples: The serious position of the Apple industry is evidenced by the regularity with which consignments of fruit arrive from Tasmania, despite the fact that the previous week's quota had not been cleared. "Hope springs eternal in the human breast," and this is very evident by the repeated appearance of unwanted F.C., S.T., and other types that are overmatured.

The N.S.W. grower still holds considerable quantities of Apples, although demand for G.S. has improved a little and, provided the fruit was undamaged by long storage, values firmed. There has been a greater proportion of fruit than usual showing ice-scald, and repacking after release from cool store became essential. Supplies from Vic. increased considerably, the Yates variety comprising the chief arrivals. Prices: Crofton (Tas.), 5/- to 8/-; Del. (N.S.W.), 8/- to 15/-; Demo. (N.S.W. 7/6), Tas. 4/6 to 6/-; F.C. (Tas.), green, 3/6 to 6/6; G.S. (N.S.W.), 5/- to 10/-; G.S. (Tas.), 4/- to 8/6; S.T.P. (Tas.), 1/- to 5/-; Yates (Vic.), 4/- to 9/6. Extra Fancy higher, domestic 1/- to 2/- lower.

Pears: The small quantity of this fruit available, chiefly from Vic., met with steady request, values being according to the soundness of the fruit. Prices:—Broome Park (Vic.), 8/- to 10/-; Jos. (Vic. to 15/-), N.S.W. 8/- to 16/-; Packham's (Vic. to 11/-), N.S.W. 8/- to 14/-. Extra Fancy higher, domestic 1/- to 2/- lower.

Apricots: These appeared from the Kurrajong and Glenorie district on October 19. As is usual, the first consignments were mostly very small, and, in some cases, rather immature. Prices at present nominally are 6/- to 9/- half bush.

Bananas: Prices:—According to the Banana Marketing Board, Regulation graded, first quality fruit. N.S.W. and Q'land., six, seven, eight and nine inch fruit 18/- to 24/- trop. case. Specially selected country order fruit higher.

Cherries: The Camden district commenced for forward on October 16, and the first cases appeared from the Young district on the 19th inst. Bulk loading from the Young district commenced on the 25th. The tone of the fruit market was indicated by the opening price which generally did not exceed 12/-, and, at the present time, prices are as follows:—Camden, 5/- to 9/-; Young district, 4/- to 6/6 per quarter bush. case. Reports from the Cherry-growing districts indicate that good crops are expected.

Citrus Fruits.

Grapefruit: Prices:—N.S.W. local, 3/6 to 6/-; Wheeney, 7/- to 12/- bush. Inland, 5/- to 8/-, few 9/-; Delta brand, 12/- to 15/- bush.

Lemons: These have been plentiful throughout the month, most of the fruit coming from metropolitan and coastal sources and much of it having a brief life. Processors have operated on occasions for both juice and peel purposes, but the price paid was very low, peel being to 4/6 and juice from 2/6 to 3/6 per bushel.

Oranges: Navels.—A few choice main crop Navels are still appearing, but with the exception of a few at Mangrove Mountain and the Irrigation Area, most are marketed.

Early in October, Navels from Vic. were available, most of them being of the "Murray Valley" brand, and fruit from S.A. in small quantities has always been procurable. The Interstate fruit realised: Vic., 6/- to 10/-, and S.A., from 7/- to 15/- per bush.

Second crop Navels are available in very large quantities, and, although some fruit is juicy and of good quality, and has sold up to 8/-, the majority is realising anything from 2/- to 5/- bush., some fruit becoming stale while awaiting sale. The retention on the orchard of light-weight, thick-skinned, second crop is advisable. Prices:—N.S.W., special and standard, 8/- to 12/-, few 13/- bush. Plain grade 5/- to 7/-; second crop, 2/- to 4/-; few special to 8/- bush.

Valencias: This fruit became much more plentiful about the middle of October, the majority of arrivals being plain grade from the Irrigation Area and fruit from coastal and metropolitan sources, that was likely to develop Black Spot. Good values were received from most arrivals, despite the quality. Prices:—N.S.W., special and standard, local, 5/- to 8/-, few 10/- bush. Plain grade, 2/- to 4/- bush. Inland, 5/- to 7/-, few 8/- bush. Two bushel crates, 11/- to 12/-, few 13/-.

Mandarins: Mostly second crop Mandarins have been arriving since the end of September, and up to 13/- was obtained for the best. Values eased last week and there is now a large quantity of second crop small fruit available on the market. Prices: N.S.W., local, Emperor, 5/- to 9/-, few higher, inferior from 2/- bush.

Loquats: Prices:—2/- to 6/6; Mammoth, to 8/- half bush.

Plums: A few small Early Gem appeared on October 21, and, upon opening them in the market, fungus was observed. Prices nominally were 2/6 to 4/- half bush.

Papaws: An average of 492 tropical cases came from Queensland each week, values latterly being 8/- to 12/-, with a few higher per tropical case.

Passion Fruit: Passion Fruit was wanted at all times when of special quality and up to 13/- was obtained. Prices:—5/- to 7/-, special 10/- to 13/-, inferior from 2/- half case.

Pineapples: 19,033 tropical cases came from Queensland, and this average of 3,806 cases per week was usually absorbed at around the figure quoted. During the second week in October, when arrivals approximated 5,000 cases in the one week, values receded to 10/-. Prices:—Q'land., 9/- to 13/-, few higher per tropical case.

Strawberries: Queensland supplies have now finished for the season and N.S.W. fruit is at from 5/- to 9/-, with special quality to 12/- per dozen punnets.

Tomatoes: 82,335 half bushel cases came from Queensland, the Bowen district being finished. Fruit from the central north coast of N.S.W. appeared during the second week in October, the fruit in many instances being of very special quality. Prices at the end of September and early in October were very high, but the cool weather experienced caused values to ease early in the month, and this reduction in values has still continued. Recent rains have improved the prospects of the N.S.W. crop, but the glasshouse fruit, in some instances, is very small and immature. Glasshouse fruit is still plentiful, but the competition of the north coast fruit is now being felt. W.A. fruit was available most of the month, but is now finished. Present prices are as follows:—N.S.W., North Coast, 7/- to 12/-; glasshouse, 6/- to 10/-; hothouse (few only), to 13/- half bush; Q'land., 3/- to 7/-, few higher half bush. Repacked, 8/- to 12/- half bush.—L. T. Pearce, Market Representative, Fruitgrowers' Federation of N.S.W.

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VICTORIA.

Market Report for October.

AVERAGE trading was reported on the wholesale fruit market during October. Too many poor conditioned Oranges were received, which lowered the general price average, contrary to expectations. Apples flowed evenly. Tomatoes helped to save sales from a depression during the month.

Citrus: Common Oranges did not clear well. Navels were more plentiful than at this time last year. The market was influenced by arrivals in bad order being frequent. Heavy S.A. shipments affected the market also. Valencias started during the month, mainly from Mildura, quality only fair. Lemons good quality, price satisfactory. Grapefruit sold well, supplies were short and prices firm.

Apples were cheaper during the month than last year. Market quieter than was desirable.

Pears.—Good Packhams held good prices, but other varieties were low priced.

Bananas: Moved normally, fair average prices for the month.

Pineapples: Eased during the month, unusual report. Prices should rise towards Christmas, but in mid-October they eased.

Tomatoes: Held steadily at good prices. W.A. and S.A. receivals opened up well, Queensland not quite so good. Demand was firm.

Celery: Sales were good up to the last week, when they dropped.

Cherries made their appearance. Burgsdorfs were small. Early Lyons followed and opened up at favorable prices, about the same as last year at this date. Quantities increased in last week and demand was good. Some shipments from Young opened up badly. A few local lots.

Strawberries: Few came on to market in the last half at good prices, which were maintained to the end of the month. The quality was good.

Passion Fruit: Very few available. Good samples brought good prices.

Peas: Short supplied during the wet week and prices rose. Something approaching a glut followed, and prices dropped quickly.

Beans: Queensland offerings were too old and did not bring payable prices. N.S.W. shipments arrived in good order and sold well.

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QUEENSLAND.

Brisbane (22/10/37). — Messrs Clark & Jesser report as follows:—The heavy supply of Apples has been well maintained throughout the past month, while Oranges have been in lighter supply, and prices have advanced for the commodity.

The ruling values are:—Apples Jon. and Croftons of 2¼ size, 9/- to 10/-; smaller sizes, 4/- to 7/-; other colored varieties, 5/- to 7/-; Stp., 5/- to 6/-; F.C., 6/- to 7/6; G.S., 10/- to 11/-. Oranges: Vals., 9/- to 10/6. Cherries and Apricots have made their appearance on the market, and are realising: Cherries, 12/- to 14/-; Apricots, 14/- to 16/- half case. Pears W.C. and Jos., 13/- to 14/-; W.N., 11/- to 12/-; Broom Park, 9/- to 10/-. Lemons: 8/- to 10/-. Tomatoes Colored, 9/- to 10/-; green, 6/- to 7/-. Bananas: Very scarce and realising 19/- to 20/- case.

SOUTH AUSTRALIA.

Adelaide (29/10/37).—Apples (eating), 5/- to 7/- case, do. (cooking) 4/- to 6/-; Bananas (Qld.), 20/- to 22/-; Lemons, 5/-; Oranges (Common), 4/-; do. (Navel), 6/- to 8/-; do. (Poorman), 5/-; Passionfruit, 30/-. Pineapples, 18/-.

WESTERN AUSTRALIA.

Perth (29/10/37).—Apples: Dunn's dumps, 7/- to 9/6; Yates, 7/- to 13/9 G.S., 9/- to 14/6; Statesman, 10/6 to 13/-; Rokewood, 9/- to 11/6; Doherty 9/- to 12/-. Citrus: Vals., flats 4/- to 7/6, dumps 4/- to 10/6; Jaffas dumps 9/- to 12/9; Navels, flats, 4/- to 10/-, dumps 6/- to 13/6; Lemons flats 2/- to 6/-; Grapefruit, dumps 10/- to 15/-. Other lines: Loquats 3/- to 13/9; Tomatoes 3/- to 15/- (inferior from 1/-).

NEW ZEALAND.

Dunedin (22/10/37). — Messrs Reilly's Central Produce Mart report as follows:—Business during the week has been quite satisfactory, and consequent on the fine weather being experienced, heavier supplies of early grown produce have been received. There is an increased demand for first grade Apples, and lines of Del. and Sturmers ex cool store are bringing better values. Inferior grade fruit is still difficult to place.

S. Aust. Oranges ex the "Waitaki" have had a good enquiry, and only small sized fruit is now available ex the marts.

Some shipments of very fine quality Pineapples have been arriving during the week, and meeting with an excellent demand. Cal. Grapes have been selling satisfactorily.

N.Z. Lemons are in ample supply with a slow sale.

Ripe Bananas have been selling well. A further shipment of Niues and Samoans is due by the "Maui Pomare" next week. Owing to Labour Day being a holiday, this fruit will not arrive in Dunedin until Wednesday the 27th.

Increased supplies of Christchurch and local hothouse Tomatoes are being received.

Prices (per case): Australian Oranges, Vals., 17/- to 22/-; Cal. Lemons 65/-, Grapefruit, Jamaican 32/6. Grapes: Emperors, Whites Malagas 27/6. Bananas, ripes, 26/-. Pines, 21/6. Apples: Del., 5/- to 8/-. Jons. 6/- to 7/-, Sturmers 6/- to 9/-. G.S. 8/- to 9/-. inferior grade dessert Apples 2/- to 3/6, cookers 4/- to 6/6. N.Z. Lemons 8/- to 10/-. N.Z. Grapefruit, 8/-. Per half case: Passion Fruit, 15/-.

W.A. Fruitgrowers' Conference

OVERSEAS MARKETING

Apple Sales Board Report

THE annual conference of the West Australian Fruitgrowers' Association was opened in Perth on September 21, when the Minister for Industry (Mr. A. R. G. Hawke) referred to the importance to the State of the fruit industry. Mr. J. M. Martin gave the Presidential address and stated that he rather queried the wisdom of the present quota system. If the United Kingdom market could be restricted to Empire fruits, he said, the quota system might be a wise one, but at present it is conferring an advantage upon foreign suppliers. Since a large number of fruit trees in W.A. had lately come into bearing, some steps should be devised to extend the State's export trade.

A discussion took place upon the question of quotas, and the Chairman of the W.A. Fruit Shippers' Committee (Mr. A. H. Dickson) read a statement setting out some of the problems that the Committee sees ahead. At the suggestion of the Secretary (Mr. H. W. Soothill) the following motion was carried: "In view of growers' dissatisfaction, the existing quota system be fully reviewed at the next meeting of the Apple and Pear Council."

Among the motions that were carried were the following:—

Conference asks for a better and more even spacing of ships to English ports to avoid serious dumping or overloading of Apples and Pears on the English markets. (Albany.)

Owing to the large increase in the production of Apples, and the failure of the United Kingdom markets to absorb them at a payable price, the Department of Trade and Commerce is strongly urged to find new avenues of trade on the Continent and in the East. (Manjimup.)

That the Association donate £50 to the central fund for an extensive publicity campaign. Two campaigns had been conducted to stimulate the sale of Apples, and three for Oranges; the results had been successful.

Fruit Fly Control.

In the course of an animated discussion regarding fruit fly control, it was contended that the Department of Agriculture had not been active enough in combating the pest. It was decided that a deputation should wait on the Minister (Mr. Wise), and ask that the Fruit Fly Advisory Board should be replaced by another with statutory powers to control the eradication of the pest. A recommendation was made to the Minister asking that baiting be made compulsory to all affected areas, but a reply was received stating that the expenses involved and enforcement were the difficult factor.

Messrs. J. McNeil Martin, of Mt. Barker, and W. P. Scott, of Bridgetown, were re-elected President and Vice-President, respectively. Messrs. Martin and H. Lake, of Bridgetown, were appointed to represent the Association at the meeting of the Apple and Pear Export Council to be held in Sydney on October 25, and Messrs. Martin, Scott, G. Parke (Donnybrook) and H. W. Soothill (joint Secretary) were appointed to the Fruit Organisation Board.

Apple Sales Board.

The report of the Board for 1936 has now been received, and the following brief extracts are noted:

The Crop.

The crop for 1936 was again a record and the average worked out at 124 bushels per acre. The reason assigned for this high average is that an increasingly large proportion of the total bearing acreage is of young and vigorous trees of heavily productive varieties, which have replaced old trees which were losing their vigor.

Export.

The total shipped to the end of June was practically 900,000 cases, an increase of almost 50,000 over that of the previous year, and of more than 150,000 in excess of any earlier years. Of this total, less than 300,000 cases were absorbed by the Continent, and in shipment to the Far East, etc. The quantity despatched to the United Kingdom is always a vital factor in export, and last year this was approximately 620,000 cases. This total was over 160,000 cases in excess of this State's quota; although, to some extent this offset deficiencies in shipments from other States, it nevertheless contributed to the total excess shipments from Australia as a whole in 1936.

But for these heavy exports the quantity left in the State must have reached an impossible total.

Cool Stored Quantities.

Despite the heavy export just referred to, the quantity left in the State at June 30 and housed in cool stores represented the second highest figure which the State has ever held at that date. The particulars are:—

Variety.	Average. 1931-35.	1936.
Yates	35,700	27,000
Granny Smith	23,800	43,000
Other varieties	35,300	46,000
	94,800	116,000

FRUIT ON POSTAGE STAMPS.

Rumania Shows the Way.

"EAT MORE FRUIT" is the advice appearing upon the 2 lei stamp issued by Rumania in 1934 to commemorate the Bucharest Fruit Exposition, and provided an international advertisement for fruit. This particular stamp depicts a lady holding a basketful of fruit which contained Apples and Pears, whilst another variety showed a girl looking expectantly at a bunch of luscious Grapes.

Other countries have also used postage stamps for advertising fruit. Switzerland reproduced a picture of Grapes on a stamp to impress the importance of child welfare, and four other varieties have depicted bunches of Grapes in the past eight years.

Sierra Leone is another country that has adopted stamp publicity for its fruit production. One variety depicted a native with a basketful of fruit on his head, and was used to commemorate the centenary of the abolition of slavery. Liberia also showed a Pineapple on its issue of 50 cent stamps in 1923, whilst Jamaica had a similar fruit for a watermark as long ago as 1860 and has since used fruit decorations, notably in her 1919 issue.

Costa Rica's 1923 4 cent stamp carried a picture of Banana gathering, and the 30 cent issue of Tripoli stamps had a somewhat similar feature. The French Colony of Togoland showed Coconuts on most of its low value stamps in 1924, whilst Haiti, Uruguay, Ecuador and Bulgaria picture their native fruits, Cocoa Beans and vegetables, upon their stamps.

It would be in the nature of an appreciation of the fruit industry if Australia should give the Kookaburra, Emu and Kangaroo a spell and depict some of Australia's choice fruits on stamps that go so regularly to all corners of the globe.

THE PIG PEN

CHARCOAL GOOD FOR PIGS.

ALTHOUGH the pig has no gizzard similar to that of the fowl, Dr. M. White, in the "Queensland Agricultural Journal," says that charcoal will assist digestion.

Digestive efficiency in farm animals depends largely on their capacity for grinding the food in small fragments. Thorough mastication is therefore linked with ease of digestion. Some animals may eat food rapidly without ill-effects. Thus the domestic fowl swallows quickly, but it has a remarkable mechanism in the gizzard for grinding the food to a fine state for subsequent digestion and absorption.

The pig is not so well equipped as the fowl to handle rapidly-eaten food, yet under most farm conditions fast eating is the rule. The pig can be helped to make better use of its foods in the following ways:— .

(i.) By feeding easily digested material.

(ii) By grinding the less digestible foods.

(iii.) By ensuring the animals sufficient feeding room.

(iv.) By arranging for some open grazing where the animals may eat at their leisure.

(v.) By feeding aids to digestion.

It is the last with which this article is concerned.

Charcoal and coke are extremely cellular materials and possess a great number of surfaces. At these surfaces rapid digestion of food can take place. By feeding either of them in powdered form, coarse lumps of food become coated with a film possessing an actively digesting surface.

An alternative and cheaper method is to throw coarse charcoal or coke into the pig sty and let the animals grind and eat as they feel inclined.

WORMS IN PIGS.

Treatment Advised.

In reply to a question, Mr. A. H. Robin, B.V.Sc., stated in the August "S.A. Journal of Agriculture" that the most effective treatment for worms in pigs is to mix thorougrly 1 part of oil of chenopodium with 19 parts of castor oil or raw linseed oil, and administer to the pigs individually doses of this as hereunder according to age:—

Age of Pig.	Dose. Fluid Oz.
8 weeks	0¾
10 weeks	1
12 weeks	1¼
14 weeks	1½
16 weeks	1¾
18 weeks	2
6 months	2½
9 months	3¾
12 months and over	5

(2 tablespoonsful = 1 fluid oz.; 1 dessertspoonful = ¼ fluid oz.)

It is best to shake the dose up with a little milk and give the whole as a drench after first starving the pigs for 24 hours. While this will effectively remove the worms present in the intestines of the pigs at time of administration, subsequent fresh reinfestation of the pigs must be guarded against. All voided worms should be destroyed by burning. If the pigs are held in sties, the sties should be thoroughly swept or washed out once a week, and feeding and water troughs thoroughly scalded with hot water. This will remove and destroy worm eggs and larvae. If the pigs are running in paddocks or yards, they should be removed to fresh paddocks or yards after dosing has been carried out.

LICE AND MITES IN PIGS.

When pigs are seen frequently rubbing against convenient objects in their run, or when the skin is rough and scaly, particularly on the head, neck, and shoulders, skin parasites should be suspected.

Lice and mange mites are the common external parasites of the pig which cause the above symptoms. Lice measure up to about one-quarter of an inch in length, and as they occur on the skin surface, are very readily seen. The mange mites, on the other hand, are extremely minute in size, being only about one-fiftieth of an inch long, and as they live under the skin surface, the aid of the microscope is necessary to find them.

Both lice and mites cause considerable irritation, preventing the animal from making normal growth, and by lowering its vitality make it readily susceptible to other diseases. The mange mites cause the skin to become roughened, thickened, and thrown into folds, and unless their spread is controlled they are quite capable of causing death.

Parasitic mange is readily contagious, and all affected animals should be immediately isolated. After a thorough washing with warm soapy water, the animal should then be covered with crude oil, which is best applied by hand on a cloth. This disease may, when in an advanced stage, become very obstinate to treatment, and numerous applications of oil at frequent intervals may be necessary to effect a cure.

Crude oil is also very effective against lice, but as the first application does not kill the eggs, a second application should be made after an interval of fifteen days.

Pigs should be oiled in the evening, as exposure to the sun immediately after oiling, especially in white breeds, may cause blistering of the skin.

MILK FOR PIG FEEDING.

Dr. Charles Crowther, in the British Journal of the Ministry of Agriculture, writes on the experimental work of the National Institute for Research in Dairying, with reference to the feeding of pigs. This has been chiefly concerned with studies of the nutritive value of milk and vitamin requirements.

The general growth-promoting properties of even small quantities of milk—no more than one-half pint per head daily—have been strikingly demonstrated. As the quantity of milk was increased a still further improvement was effected, but not proportionate to the increase of supply. The most economic return from a given quantity of milk is thus obtained by spreading it over as many young pigs as possible.

The vitamin research of the Institute has demonstrated the practical importance of vitamins A, B, and D in pig feeding. In recent years attention has been largely concentrated upon vitamin A, and it has been shown that some of the rations commonly used in pig feeding practice may be deficient in this vitamin.

In studies of anaemia in suckling pigs, confimation has been obtained of the now generally accepted view that this disorder is due to deficiency of iron in the sow's milk, and may be checked by administration of iron direct to the suckers before the critical third and fourth weeks of life.

Dosing the piglets with solutions of iron salts, smearing the sows' teats with the iron solutions, and providing cinders treated with ferrous sulphate in the "creep" were all found to be effective.

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Cherries are on the Way

Picking and Packing—By-Products

IT is an accepted general principle to look for Cherries on the Melbourne market around about Cup time, and already small shipments are dribbling on to the market, mainly from the Benalla district.

In years past, Victoria grew more Cherries than did N.S.W., in fact, Victoria sent comparatively large shipments to Sydney market every season. But times have changed, and most of the Cherries sold on the Melbourne wholesale market come from N.S.W., the chief producing districts being Young and Orange, where some large Cherry orchards are seen.

In Victoria the outer Metropolitan Area probably produces more Cherries than any other individual district, followed by Benalla. Most of the production, however, is distributed personally by growers to retailers or in the retail section of the Victoria markets.

Picking and Packing.

Some good seasonal hints are contained in the "N.S.W. Agricultural Notes" of October 23, in which the writer says:—

Because of the soft nature of the fruit when fully ripe, Cherries must be harvested at the firm-ripe stage. They should be picked with the stalk attached, and handled by the stalks.

Kerosene tins, either cut in halves or better still, with a side cut out and provided with wire handle, make suitable receptacles for Cherry picking. The edges of the tin should be turned over and well hammered down to avoid any injury when emptying the fruit from the tins. Whatever receptacle is used, it is important that it should be suspended by straps from the picker's shoulders or hooked on to the limbs of the trees, leaving both hands free for picking.

Small trees with slender limbs can be picked from the ground. A limb can be pulled down and held under the picker's arm while he picks with both hands. Some form of steps or scaffolding is necessary when picking from large trees. Steps should be as light as possible, to allow quick shifting, and wide at the base to render them stable.

On very large spreading trees, heavily laden with fruit, a long platform stool is very convenient, or a stout plank of light timber supported between two painter's trestles. The fruit being small and crowded when a tree is cropping heavily, the Cherry picker is not moving his position so often as when picking larger fruit, such as Apples or Oranges, and a long stool or plank allows the picker to work over quite a wide area of tree without shifting the position of the stool or trestles.

A lorry fitted with a movable plank attachment is another device for facilitating picking. The plank is attached at a point about 2 feet from the back and 18 inches from the side of the lorry by means of a single bolt through the deck and a runner, and can be easily swung into any required position alongside the tree. Two or three men can work from the lorry at the same time.

Care should be taken that the pickers do not break the fruit spurs. Much damage can be done to the trees by careless pickers, resulting in loss in succeeding crops.

The general practice when packing is to have the lid nailed on the 12 lb. box and the bottom off. The Cherries are rowed in on the inside of the lid, and the remainder are packed in firm without rowing. This facing gives a neat appearance, but the difficulty is to keep an average size in the face which is fairly representative of the fruit below. This difficulty can be overcome and an attractive facing still maintained by picking the fruit up by the stalks, placing them on the inside of the lid in bunches, and then filling in as for a rowed face.

Bunch facing has been found preferable when skilled row facers are not available.

WINE FROM CHERRIES.

Experiments Said to be Satisfactory.

With the Cherry season coming on, it will be of interest to growers to note that experiments are being carried out by Oregon (U.S.A.) growers to convert Cherries, refused by the canneries, into wine.

Sanders Bros., who own a large acreage of Montmorency Cherries, three years ago made Cherry wine in small quantities. This was found to be of good quality and last year they persevered witht he experiment, making a fair commercial quantity of wine. It was found to be popular with people who like a wine with a mild alcoholic content. Its flavor and color were excellent, according to reports.

The experimenters declare that a good profit can be made from Cherry wine, and are so processing their entire output of Cherries in this form. Harvesting expenses are declared to be low, and, if the trade can be developed, a large community of Cherry growers, who have been operating at a loss, will benefit.

FRUIT WORKERS GET A RISE.

Increase of 4/6 per Week.

By a judgment given in the Full Court of the Arbitration Court on October 8, workers in the fruit industry in the Mildura, Redcliffs and Merbein districts (Victoria), will re-receive a rise of 4/6 per week, bringing their basic wage up to £3/15/- per week.

The new wage will cover both the full basic wage and the 2/6 per week, which is allowed for holidays, making it 1/- per week less than Melbourne rates. Females will be affected in the same proportion as previously, i.e., two-thirds of the adult male rate, to the nearest sixpence.

CHRISTMAS MAILS FOR THE U.K. AND EUROPE.

We are asked by the Postal Department to advise readers that the last mail for packets and letters for delivery before Christmas Day in the United Kingdom and Europe will be despatched per the R.M.S. "Moldavia." The mail closing times are as follow: — G.P.O., Brisbane, 16/11/37; G.P.O., Sydney, 17/11/37; G.P.O., Hobart, 17/11/37; G.P.O., Melbourne, 18/11/37; G.P.O., Adelaide, 19/11/37; G.P.O., Perth, 22/11/37.

Last Air Mail.

To ensure letters and small packets arriving in London on December 22 and being delivered before Christmas, air mail must be posted as follows: Perth and Adelaide, December 9; Hobart, Melbourne and Sydney, December 10, and Brisbane, December 11, at times which may be ascertained at all post offices.

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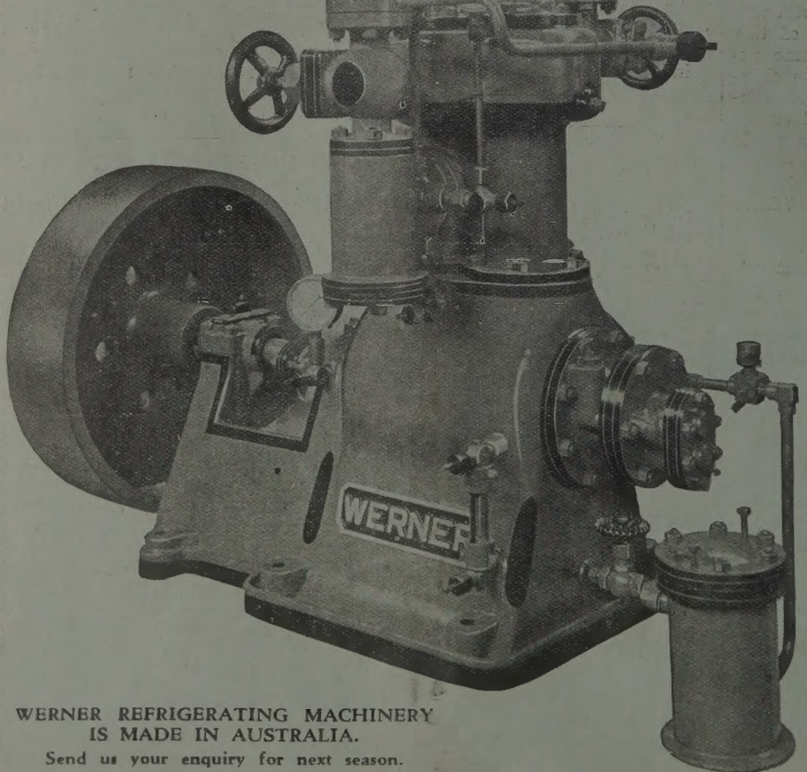

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